



BIDDING DOCUMENTS

Issued on: 4 March 2013

for

Procurement of

Hospital and Laboratory Equipment

(Comprising 22 slices ICB 31.1 to 31.22)

IFB No: NHSP-II/G/ICB-31/Procurement of Hospital Equipment
(including Anaesthesia Machine, CT scan, X-Ray, USG, Video
Arthroscopy System, Naso Pharyngoscope etc.)/ 2012-13

Project: Nepal Health Sector Program II

Purchaser: *Government of Nepal, Ministry of Health and
Population, Department of Health Services, Logistics
Management Division (LMD), Teku, Kathmandu, Nepal*

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Invitation for Bids (IFB)

Country: Nepal

Name of the Project: Nepal Health Sector Program 2 (NHSP-2)

Credit/ Grant No.: Cr. 4707-NEP & Gr. H 557-NEP

Supply and Delivery of Hospital and Laboratory Equipment

IFB Number: **NHSP-II/G/ICB-31/ Procurement of Hospital and Laboratory Equipment (including Anaesthesia Machine, CT Scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)/ 2012-13**

First date of Publication: 4 March 2013

1. This Invitation for Bids follows the General Procurement Notice for this Project that appeared in Development Business, issue no. 790 of 16 January 2011.
2. The Ministry of Health and Population (MoHP) has received a grant/credit from the International Development Association toward the cost of the Health Sector Programme, and it intends to apply part of the proceeds of this grant/credit to payments under the Contract for Supply and Delivery of Hospital and Laboratory Equipment (including Anaesthesia Machine, CT Scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.) under one package of 22 slices as detailed in paragraph 8 below.
3. The MoHP, Department of Health services (DoHS), Logistic Management Division (LMD) now invites sealed bids from eligible and qualified bidders for Hospital and Laboratory Equipment to be delivered to the designated sites as defined in Section VI: Schedule of Requirements – List of Goods and Delivery Schedule. Bidders may bid for one or more Slice and shall indicate this in their bid form, together with any statement on discount /cross discount if any. A bidder must quote for the total quantity of all items in each Slice. Evaluation will be conducted on a Slice by Slice basis with the final awards being determined based on the combination of contracts that is of least cost to the Purchaser.
4. Bidding will be conducted through the International Competitive Bidding (ICB) procedures specified in the World Bank's Guidelines: Procurement under IBRD Loans and IDA Credits (May 2004, revised October 1, 2006), and is open to all bidders from Eligible Source Countries as defined in the World Bank's Guidelines.
5. Interested eligible bidders may obtain further information from the Director, e-mail director@dohslmd.gov.np of the Logistic Management Division (LMD), Department of Health Services (DoHS), MoHP and inspect the Bidding Documents at the address given below from 1000 to 1600 hours (local time) during office days or, at their convenience, download the documents from the LMD website (www.dohslmd.gov.np). Please note, however, that Bids will only be accepted with a purchased, numbered original of the Bidding Documents.
6. Qualifications requirements include, but are not limited to, the requirements stated in the Section I, Instructions to Bidders of the Bidding Documents.
7. A complete set of Bidding Documents in English may be purchased by interested bidders on the submission of a written Application to the address below and upon payment of a non-refundable fee of **NPR 10,000.00 or USD 120.00**. The method of payment will be in the form of a cash deposit certificate in Revenue Title no 14227, Office code no. 27-370-11, Account no. Ka-1-1-001 of Rastriya Banijya Bank, Teku Branch. Foreign Bidders may also pay through a bank draft in favour of the LMD, or may receive the (numbered) Bidding

Documents from the LMD upon presentation of Cash Payment Receipt from Financial Administration Section of DoHS.

The Bidding Documents will be available at the LMD at the address below during working hours between **4 March 2013** and up to 12.00 Hours Nepal Time on the **18 April 2013**. If requested in writing and on payment of an additional non-refundable fee of USD 50.00 or NPR 4,000.00 per set, Bidding Documents shall be sent via a reliable courier service. The LMD however will not be responsible for any delay or non-delivery of the documents so sent.

8. Bids must be delivered to the address below by or before 1200 hours (Nepal time) on **18 April 2013**. Electronic bidding will not be permitted. Late Bids will be rejected. Bids will be opened in the presence of the bidders' representatives, who choose to attend in person at the address below at 12:30 hours (local time) on **18 April 2013**. All bids must be accompanied by a Bid Security not less than the amounts shown in the Table below.

ICB 31 Hospital Equipment (including Anaesthesia Machine, CT scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)			
Slice No	Item Description	Total quantities Required	Bid security amount in NPR
1	Anaesthesia Machine	10	400,000.00
2	Autoclave Electric	100	80,000.00
3	Steriliser Steam Pressure Electric Type 25L	150	140,000.00
4	Intended Deletion		
5	Pulse Oxymeter	70	65,000.00
6	CT Scan 16 Slice	4	5,500,000.00
7	Intended deletion		
8	Dental Chair	10	175,000.00
9	ICU Ventilator for Children & Adult Pneumatic	20	800,000.00
10	Operation Table	10	110,000.00
11.1	USG Portable Colour Doppler 3 probes	10	2,700,000.00
11.2	High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes	1	
11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes	1	
12	Video Arthroscopy System	2	280,000.00
13	Flexible Naso Pharyngoscope with halogen light	10	250,000.00
14	X-Ray C-Arm Mobile	8	2,300,000.00
15	X-Ray Machine 300mA	45	11,000,000.00
16	X-Ray Machine 500 mA, Fixed DR with film printer	2	1,100,000.00
17	Blood Culture System	2	510,000.00
18	Diathermy Electrosurgical 300W	14	275,000.00
19	Video Gastro, Duodeno, Colono with Camera System	2	850,000.00
20	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories	1	1,800,000.00
21	Flat Panel Digital Fluoroscopy	1	1,250,000.00
22	Motorised High Frequency Portable Digital X-Ray	1	600,000.00

Bid securities should be in the name of the bidder and in case of a Bid Security issued by a foreign bank, the same shall be counter-guaranteed by a Class A Commercial Bank in Nepal. The amount of the Bid Security shall be not less than the amounts shown in the Table above and must be valid for twenty-eight (28) days after the end of the bid validity period **(i.e. till 13 October 2013)**.

Notes: Bidders have the choice to provide bid security as follows:

- A Single bid security for the total of all slices bid for.
 - Multiple bid securities for any combination of slices bid for.
 - Bid security singly per slice.
9. If the specified date for submission and opening of the bid falls on a government holiday, then the same time of the next working day shall be considered for such events. The bid validity and validity of bid security remain unchanged unless amended by another notice.

The address referred to above is as follows:

The Director, Logistic Management Division,
Department of Health services,
Ministry of Health & Population,
Off: Pachali, Teku, Kathmandu,
Tel: off (+977) (0) 1 426 1768; Fax: off (+977) (0) 1 426 1413
E-mail: director@dohslmd.gov.np

SECTION I. INSTRUCTIONS TO BIDDERS

PART 1 – Bidding Procedures

Section I. Instructions to Bidders

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Section I. Instructions to Bidders

General

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| 1. Scope of Bid | <p>1.1 The Purchaser indicated in the Bidding Data Sheet (BDS), issues these Bidding Documents for the supply of Goods and Related Services incidental thereto as specified in Section VI, Schedule of Requirements. The name and identification number of this International Competitive Bidding (ICB) procurement are specified in the BDS. The name, identification, and number of lots of are provided in the BDS.</p> <p>1.2 Throughout these Bidding Documents:</p> <ul style="list-style-type: none"> (a) the term “in writing” means communicated in written form (e.g. by mail, e-mail, fax, telex) with proof of receipt; (b) if the context so requires, “singular” means “plural” and vice versa; and (c) “day” means calendar day. |
| 2. Source of Funds | <p>2.1 The Borrower or Recipient (hereinafter called “Borrower”) specified in the BDS has applied for or received financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) toward the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract for which these Bidding Documents are issued.</p> <p>2.2 Payments by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the financing agreement between the Borrower and the Bank (hereinafter called the Loan Agreement), and will be subject in all respects to the terms and conditions of that Loan Agreement. The Loan Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan Agreement or have any claim to the funds.</p> |
| 3. Fraud and Corruption | <p>3.1 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), as well as bidders, suppliers, and contractors and their agents (whether declared or not), personnel, subcontractors, sub-consultants, service providers and suppliers under Bank-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts.¹ In pursuance of this policy, the Bank:</p> <ul style="list-style-type: none"> (a) defines, for the purposes of this provision, the terms set forth |

¹ In this context, any action taken by a bidder, supplier, contractor, or any of its personnel, agents, subcontractors, sub-consultants, service providers, suppliers and/or their employees to influence the procurement process or contract execution for undue advantage is improper.

below as follows:

- (i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party¹;
- (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation²;
- (iii) “collusive practice” is an arrangement between two or more parties³ designed to achieve an improper purpose, including to influence improperly the actions of another party;
- (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party⁴;
- (v) “obstructive practice” is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under sub-clause 3.1 (e) below.
- (b) will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;
- (c) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan engaged in corrupt, fraudulent, collusive, or coercive practices during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur; and

¹ “Another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

² “Party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

³ “Parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non- competitive levels.

⁴ “Party” refers to a participant in the procurement process or contract execution.

- (d) will sanction a firm or an individual, at any time, in accordance with prevailing Bank's sanctions procedures^a, including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated^b subcontractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract.

3.2 In further pursuance of this policy, Bidders shall permit the Bank to inspect any accounts and records and other documents relating to the Bid submission and contract performance, and to have them audited by auditors appointed by the Bank.

3.3 Furthermore, Bidders shall be aware of the provision stated in Sub-Clause 35.1 (a) (iii) of the General Conditions of Contract.

4. Eligible Bidders

4.1 A Bidder, and all parties constituting the Bidder, may have the nationality of any country, subject to the restrictions specified in Section V, Eligible Countries. A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including Related Services.

4.2 A Bidder shall not have a conflict of interest. All bidders found to have conflict of interest shall be disqualified. Bidders may be considered to have a conflict of interest with one or more parties in this bidding process, if they:

- (a) are or have been associated in the past, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under these Bidding Documents ; or
- (b) submit more than one bid in this bidding process, except for alternative offers permitted under ITB Clause 13. However, this does not limit the participation of subcontractors in more than one bid;

4.3-4.4 A firm that has been sanctioned by the Bank in accordance with the above ITB Clause 3.1 (d), or in accordance with the Bank's Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by

^a A firm or an individual may be declared ineligible to be awarded a Bank-financed contract upon completion of the Bank's sanctions proceedings as per its sanctions procedures, including inter alia: (i) temporary suspension in connection with an ongoing sanctions proceeding; (ii) cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks; and (iii) the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption.

^b A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which either has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the bidder's pre-qualification application or the bid; or (ii) appointed by the Borrower.

IBRD Loans and IDA Credits and Grants, shall be ineligible to be awarded a Bank-financed contract, or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall determine. The list of debarred firms is available at the electronic address specified in the **BDS**.

- 4.5 Government-owned enterprises in the Borrower's Country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Purchaser.
- 4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.
- 5. Eligible Goods and Related Services**
- 5.1 All the Goods and Related Services to be supplied under the Contract and financed by the Bank may have their origin in any country in accordance with Section V, Eligible Countries.
- 5.2 For purposes of this Clause, the term "goods" includes commodities, raw material, machinery, equipment, and industrial plants; and "related services" includes services such as insurance, installation, training, and initial maintenance.
- 5.3 The term "origin" means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

Contents of Bidding Documents

- 6. Sections of Bidding Documents**
- 6.1 The Bidding Documents consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addendum issued in accordance with ITB Clause 8.

PART 1 Bidding Procedures

- Section I. Instructions to Bidders (ITB)
- Section II. Bidding Data Sheet (BDS)
- Section III. Evaluation and Qualification Criteria
- Section IV. Bidding Forms
- Section V. Eligible Countries

PART 2 Supply Requirements

- Section VI. Schedule of Requirements

PART 3 Contract

- Section VII. General Conditions of Contract (GCC)
- Section VIII. Special Conditions of Contract (SCC)
- Section IX. Contract Forms

6.2 The Invitation for Bids issued by the Purchaser is not part of the Bidding Documents.

6.3 The Purchaser is not responsible for the completeness of the Bidding Documents and their addendum, if they were not obtained directly from the Purchaser.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of the bid.

7. Clarification of Bidding Documents

7.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address **specified in the BDS**. The Purchaser will respond in writing to any request for clarification, provided that such request is received no later than twenty-one (21) days prior to the deadline for submission of bids. The Purchaser shall forward copies of its response to all those who have acquired the Bidding Documents directly from it, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under ITB Clause 8 and ITB Sub-Clause 24.2.

8. Amendment of Bidding Documents

8.1 At any time prior to the deadline for submission of bids, the Purchaser may amend the Bidding Documents by issuing addendum.

8.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents directly from the Purchaser.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB Sub-Clause 24.2

Preparation of Bids

9. Cost of Bidding

9.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

10. Language of Bid

10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in the

language **specified in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages into the language **specified in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.

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| 11. Documents
Comprising
the Bid | <p>11.1 The Bid shall comprise the following:</p> <ul style="list-style-type: none"> (a) Bid Submission Form and the applicable Price Schedules, in accordance with ITB Clauses 12, 14, and 15; (b) Bid Security or Bid-Securing Declaration, in accordance with ITB Clause 21, if required; (c) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB Clause 22; (d) documentary evidence in accordance with ITB Clause 16 establishing the Bidder's eligibility to bid; (e) documentary evidence in accordance with ITB Clause 17, that the Goods and Related Services to be supplied by the Bidder are of eligible origin; (f) documentary evidence in accordance with ITB Clauses 18 and 30, that the Goods and Related Services conform to the Bidding Documents; (g) documentary evidence in accordance with ITB Clause 19 establishing the Bidder's qualifications to perform the contract if its bid is accepted; and (h) any other document required in the BDS. |
| 12. Bid
Submission
Form and
Price
Schedules | <p>12.1 The Bidder shall submit the Bid Submission Form using the form furnished in Section IV, Bidding Forms. This form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.</p> <p>12.2 The Bidder shall submit the Price Schedules for Goods and Related Services, according to their origin as appropriate, using the forms furnished in Section IV, Bidding Forms</p> |
| 13. Alternative
Bids | <p>13.1 Unless otherwise specified in the BDS, alternative bids shall not be considered.</p> |
| 14. Bid Prices
and
Discounts | <p>14.1 The prices and discounts quoted by the Bidder in the Bid Submission Form and in the Price Schedules shall conform to the requirements specified below.</p> <p>14.2 All lots and items must be listed and priced separately in the Price Schedules.</p> <p>14.3 The price to be quoted in the Bid Submission Form shall be the total price of the bid, excluding any discounts offered.</p> <p>14.4 The Bidder shall quote any unconditional discounts and indicate the</p> |

method for their application in the Bid Submission Form.

- 14.5 The terms EXW, CIP, and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by The International Chamber of Commerce, as specified in the **BDS**.
- 14.6 Prices shall be quoted as specified in each Price Schedule included in Section IV, Bidding Forms. The dis-aggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country, in accordance with Section V Eligible Countries. Similarly, the Bidder may obtain insurance services from any eligible country in accordance with Section V Eligible Countries. Prices shall be entered in the following manner:
- (a) For Goods manufactured in the Purchaser's Country:
 - (i) the price of the Goods quoted EXW (ex works, ex factory, ex warehouse, ex showroom, or off-the-shelf, as applicable), including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;
 - (ii) any Purchaser's Country sales tax and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and
 - (iii) the price for inland transportation, insurance, and other local services required to convey the Goods to their final destination (Project Site) specified in the **BDS**.
 - (b) For Goods manufactured outside the Purchaser's Country, to be imported:
 - (i) the price of the Goods, quoted CIP named place of destination, in the Purchaser's Country, or CIF named port of destination, as specified in the **BDS**;
 - (ii) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified in the **BDS**;
 - (iii) in addition to the CIP prices specified in (b)(i) above, the price of the Goods to be imported may be quoted FCA (named place of destination) or CPT (named place of destination), if so specified in the **BDS**;
 - (c) For Goods manufactured outside the Purchaser's Country, already imported:
 - (i) the price of the Goods, including the original import value of the Goods; plus any mark-up (or rebate); plus any other related local cost, and custom duties and other import taxes already paid or to be paid on the Goods

already imported.

- (ii) the custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported;
 - (iii) the price of the Goods, obtained as the difference between (i) and (ii) above;
 - (iv) any Purchaser's Country sales and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and
 - (v) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified in the **BDS**.
- (d) for Related Services, other than inland transportation and other services required to convey the Goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements:
- (i) the price of each item comprising the Related Services (inclusive of any applicable taxes).

14.7 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, unless otherwise specified in the **BDS**. A Bid submitted with an adjustable price quotation shall be treated as non responsive and shall be rejected, pursuant to ITB Clause 30. However, if in accordance with the **BDS**, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.

14.8 If so indicated in ITB Sub-Clause 1.1, bids are being invited for individual contracts (lots) or for any combination of contracts (packages). Unless otherwise indicated in the **BDS**, prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Bidders wishing to offer any price reduction (discount) for the award of more than one Contract shall specify the applicable price reduction in accordance with ITB Sub-Clause 14.4 provided the bids for all lots are submitted and opened at the same time.

15. Currencies of Bid

15.1 The Bidder shall quote in the currency of the Purchaser's Country the portion of the bid price that corresponds to expenditures incurred in the currency of the Purchaser's country, unless otherwise specified in the **BDS**.

15.2 The Bidder may express the bid price in the currency of any country in accordance with Section V, Eligible countries. If the Bidder wishes to be paid in a combination of amounts in different currencies, it may quote its price accordingly but shall use no more than three currencies in addition to the currency of the Purchaser's Country.

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| 16. Documents Establishing the Eligibility of the Bidder | 16.1 To establish their eligibility in accordance with ITB Clause 4, Bidders shall complete the Bid Submission Form, included in Section IV, Bidding Forms. |
| 17. Documents Establishing the Eligibility of the Goods and Related Services | 17.1 To establish the eligibility of the Goods and Related Services in accordance with ITB Clause 5, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms. |
| 18. Documents Establishing the Conformity of the Goods and Related Services | 18.1 To establish the conformity of the Goods and Related Services to the Bidding Documents, the Bidder shall furnish as part of its Bid the documentary evidence that the Goods conform to the technical specifications and standards specified in Section VI, Schedule of Requirements.

18.2 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Schedule of Requirements.

18.3 The Bidder shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period specified in the BDS following commencement of the use of the goods by the Purchaser.

18.4 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Schedule of Requirements. |
| 19. Documents Establishing the Qualification of the Bidder | 19.1 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction: <ul style="list-style-type: none"> (a) that, if required in the BDS, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section IV, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in the Purchaser's Country; (b) that, if required in the BDS, in case of a Bidder not doing business within the Purchaser's Country, the Bidder is or will be (if awarded the contract) represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair |

and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and

- (c) that the Bidder meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.

20. Period of Validity of Bids

- 20.1 Bids shall remain valid for the period **specified in the BDS** after the bid submission deadline date prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non responsive.
- 20.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB Clause 21, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its bid, except as provided in ITB Sub-Clause 20.3.
- 20.3 In the case of fixed price contracts, if the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the Contract price shall be adjusted as specified in the request for extension. Bid evaluation shall be based on the Bid Price without taking into consideration the above correction.

21. Bid Security

- 21.1 The Bidder shall furnish as part of its bid, a Bid Security or a Bid-Securing Declaration, if required, as **specified in the BDS**.
- 21.2 The Bid Security shall be in the amount specified in the BDS and denominated in the currency of the Purchaser's Country or a freely convertible currency, and shall:
- (a) at the bidder's option, be in the form of either a letter of credit, or a bank guarantee from a banking institution, or a bond issued by a surety;
 - (b) be issued by a reputable institution selected by the bidder and located in any eligible country. If the institution issuing the bond is located outside the Purchaser's Country, it shall have a correspondent financial institution located in the Purchaser's Country to make it enforceable.
 - (c) be substantially in accordance with one of the forms of Bid Security included in Section IV, Bidding Forms, or other form approved by the Purchaser prior to bid submission;
 - (d) be payable promptly upon written demand by the Purchaser in case the conditions listed in ITB Clause 21.5 are invoked;
 - (e) be submitted in its original form; copies will not be accepted;
 - (f) remain valid for a period of 28 days beyond the validity period of the bids, as extended, if applicable, in accordance with ITB Clause 20.2;
- 21.3 If a Bid Security or a Bid- Securing Declaration is required in

accordance with ITB Sub-Clause 21.1, any bid not accompanied by a substantially responsive Bid Security or Bid Securing Declaration in accordance with ITB Sub-Clause 21.1, shall be rejected by the Purchaser as non-responsive.

- 21.4 The Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the Performance Security pursuant to ITB Clause 44.
- 21.5 The Bid Security may be forfeited or the Bid Securing Declaration executed:
- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form, except as provided in ITB Sub-Clause 20.2; or
 - (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB Clause 43;
 - (ii) furnish a Performance Security in accordance with ITB Clause 44.
- 21.6 The Bid Security or Bid- Securing Declaration of a JV must be in the name of the JV that submits the bid. If the JV has not been legally constituted at the time of bidding, the Bid Security or Bid-Securing Declaration shall be in the names of all future partners as named in the letter of intent mentioned in Section IV "Bidding Forms," Bidder Information Form Item 7.
- 21.7 If a bid security is not required in the BDS, and
- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid Form, except as provided in ITB 20.2, or
 - (b) if the successful Bidder fails to: sign the Contract in accordance with ITB 43; or furnish a performance security in accordance with ITB 44;

the Borrower may, if provided for in the BDS, declare the Bidder disqualified to be awarded a contract by the Purchaser for a period of time as stated in the **BDS**.

22. Format and Signing of Bid

- 22.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB Clause 11 and clearly mark it "ORIGINAL." In addition, the Bidder shall submit copies of the bid, in the number specified in the **BDS** and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 22.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder.
- 22.3 Any interlineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

Submission and Opening of Bids

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| <p>23. Submission, Sealing and Marking of Bids</p> | <p>23.1 Bidders may always submit their bids by mail or by hand. When so specified in the BDS, bidders shall have the option of submitting their bids electronically.</p> <p style="padding-left: 40px;">(a) Bidders submitting bids by mail or by hand, shall enclose the original and each copy of the Bid, including alternative bids, if permitted in accordance with ITB Clause 13, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL” and “COPY.” These envelopes containing the original and the copies shall then be enclosed in one single envelope. The rest of the procedure shall be in accordance with ITB sub-Clauses 23.2 and 23.3.</p> <p style="padding-left: 40px;">(b) Bidders submitting bids electronically shall follow the electronic bid submission procedures specified in the BDS.</p> <p>23.2 The inner and outer envelopes shall:</p> <p style="padding-left: 40px;">(a) Bear the name and address of the Bidder;</p> <p style="padding-left: 40px;">(b) be addressed to the Purchaser in accordance with ITB Sub-Clause 24.1;</p> <p style="padding-left: 40px;">(c) bear the specific identification of this bidding process indicated in ITB 1.1 and any additional identification marks as specified in the BDS; and</p> <p style="padding-left: 40px;">(d) bear a warning not to open before the time and date for bid opening, in accordance with ITB Sub-Clause 27.1.</p> <p>23.3 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the bid.</p> |
| <p>24. Deadline for Submission of Bids</p> | <p>24.1 Bids must be received by the Purchaser at the address and no later than the date and time specified in the BDS.</p> <p>24.2 The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB Clause 8, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.</p> |
| <p>25. Late Bids</p> | <p>25.1 The Purchaser shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB Clause 24. Any bid received by the Purchaser after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.</p> |
| <p>26. Withdrawal, Substitution, and Modification of Bids</p> | <p>26.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice in accordance with ITB Clause 23, duly signed by an authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITB Sub-Clause 22.2, (except that no copies of the withdrawal notice are required). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:</p> |

- (a) submitted in accordance with ITB Clauses 22 and 23 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION;” and
- (b) received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB Clause 24.

26.2 Bids requested to be withdrawn in accordance with ITB Sub-Clause 26.1 shall be returned unopened to the Bidders.

26.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Submission Form or any extension thereof.

27. Bid Opening

27.1 The Purchaser shall conduct the bid opening in public at the address, date and time **specified in the BDS**. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB Sub-Clause 23.1, shall be as **specified in the BDS**.

27.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. If the withdrawal envelope does not contain a copy of the “power of attorney” confirming the signature as a person duly authorized to sign on behalf of the Bidder, the corresponding bid will be opened. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening. Only envelopes that are opened and read out at Bid opening shall be considered further.

27.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the Bid Prices, including any discounts and alternative offers; the presence of a Bid Security or Bid-Securing Declaration, if required; and any other details as the Purchaser may consider appropriate. Only discounts and alternative offers read out at Bid opening shall be considered for evaluation. No Bid shall be rejected at Bid opening except for late bids, in accordance with ITB Sub-Clause 25.1.

27.4 The Purchaser shall prepare a record of the Bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per lot if applicable, including any discounts, and alternative offers if they were permitted; and the presence or absence of a Bid Security or Bid-Securing Declaration, if one was required. The Bidders’ representatives

who are present shall be requested to sign the attendance sheet. A copy of the record shall be distributed to all Bidders who submitted bids in time, and posted online when electronic bidding is permitted.

Evaluation and Comparison of Bids

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| 28. Confidentiality | <p>28.1 Information relating to the examination, evaluation, comparison, and postqualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award.</p> <p>28.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and postqualification of the bids or contract award decisions may result in the rejection of its Bid.</p> <p>28.3 Notwithstanding ITB Sub-Clause 28.2, from the time of bid opening to the time of Contract Award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it should do so in writing.</p> |
| 29. Clarification of Bids | <p>29.1 To assist in the examination, evaluation, comparison and post-qualification of the bids, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the Evaluation of the bids, in accordance with ITB Clause 31.</p> |
| 30. Responsiveness of Bids | <p>30.1 The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself.</p> <p>30.2 A substantially responsive Bid is one that conforms to all the terms, conditions, and specifications of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:</p> <ul style="list-style-type: none"> (a) affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or (b) limits in any substantial way, inconsistent with the Bidding Documents, the Purchaser's rights or the Bidder's obligations under the Contract; or (c) if rectified would unfairly affect the competitive position of other bidders presenting substantially responsive bids. <p>30.3 If a bid is not substantially responsive to the Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.</p> |
| 31. Nonconformities, Errors, and | <p>31.1 Provided that a Bid is substantially responsive, the Purchaser may waive any non-conformities or omissions in the Bid that do not constitute a material deviation.</p> |

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| Omissions | <p>31.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.</p> <p>31.3 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:</p> <ul style="list-style-type: none"> (a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected; (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above. <p>31.4 If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be rejected.</p> |
| 32. Preliminary Examination of Bids | <p>32.1 The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in ITB Clause 11 have been provided, and to determine the completeness of each document submitted.</p> <p>32.2 The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.</p> <ul style="list-style-type: none"> (a) Bid Submission Form, in accordance with ITB Sub-Clause 12.1; (b) Price Schedules, in accordance with ITB Sub-Clause 12.2; (c) Bid Security or Bid Securing Declaration, in accordance with ITB Clause 21, if applicable. |
| 33. Examination of Terms and Conditions; Technical Evaluation | <p>33.1 The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.</p> <p>33.2 The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with ITB Clause 18, to confirm that all requirements specified in Section VI, Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.</p> |

- 33.3 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with ITB Clause 30, it shall reject the Bid.
- 34. Conversion to Single Currency** 34.1 For evaluation and comparison purposes, the Purchaser shall convert all bid prices expressed in amounts in various currencies into an amount in a single currency **specified in the BDS**, using the selling exchange rates established by the source and on the date **specified in the BDS**.
- 35. Domestic Preference** 35.1 Domestic preference shall not be a factor in bid evaluation, unless otherwise **specified in the BDS**.
- 36. Evaluation of Bids** 36.1 The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.
- 36.2 To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined in ITB Clause 36. No other criteria or methodology shall be permitted.
- 36.3 To evaluate a Bid, the Purchaser shall consider the following:
- (a) evaluation will be done for Items or Lots, as **specified in the BDS**; and the Bid Price as quoted in accordance with clause 14;
 - (b) price adjustment for correction of arithmetic errors in accordance with ITB Sub-Clause 31.3;
 - (c) price adjustment due to discounts offered in accordance with ITB Sub-Clause 14.4;
 - (d) adjustments due to the application of the evaluation criteria **specified in the BDS** from amongst those set out in Section III, Evaluation and Qualification Criteria;
 - (e) adjustments due to the application of a margin of preference, in accordance with ITB Clause 35 if applicable.
- 36.4 The Purchaser's evaluation of a bid will exclude and not take into account:
- (a) In the case of Goods manufactured in the Purchaser's Country, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
 - (b) in the case of Goods manufactured outside the Purchaser's Country, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Bidder;
 - (c) any allowance for price adjustment during the period of execution of the contract, if provided in the bid.
- 36.5 The Purchaser's evaluation of a bid may require the consideration of other factors, in addition to the Bid Price quoted in accordance with ITB Clause 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be

expressed in monetary terms to facilitate comparison of bids, unless otherwise specified in Section III, Evaluation and Qualification Criteria. The factors, methodologies and criteria to be used shall be as specified in ITB 36.3 (d).

- 36.6 If so **specified in the BDS**, these Bidding Documents shall allow Bidders to quote separate prices for one or more lots, and shall allow the Purchaser to award one or multiple lots to more than one Bidder. The methodology of evaluation to determine the lowest-evaluated lot combinations, is specified in Section III, Evaluation and Qualification Criteria.
- 37. Comparison of Bids** 37.1 The Purchaser shall compare all substantially responsive bids to determine the lowest-evaluated bid, in accordance with ITB Clause 36.
- 38. Post qualification of the Bidder** 38.1 The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid is qualified to perform the Contract satisfactorily.
- 38.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 19.
- 38.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.
- 39. Purchaser's Right to Accept Any Bid, and to Reject Any or All Bids** 39.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders.

Award of Contract

- 40. Award Criteria** 40.1 The Purchaser shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
- 41. Purchaser's Right to Vary Quantities at Time of Award** 41.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section VI, Schedule of Requirements, provided this does not exceed the percentages **specified in the BDS**, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.
- 42. Notification of Award** 42.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted.
- 42.2 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 42.3 The Purchaser shall publish in UNDB online and in the dgMarket the results identifying the bid and lot numbers and the following

information: (i) name of each Bidder who submitted a Bid; (ii) bid prices as read out at bid opening; (iii) name and evaluated prices of each Bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. After publication of the award, unsuccessful bidders may request in writing to the Purchaser for a debriefing seeking explanations on the grounds on which their bids were not selected. The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after Publication of contract award, requests a debriefing.

- 42.4 Upon the successful Bidder's furnishing of the signed Contract Form and performance security pursuant to ITB Clause 44, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to ITB Clause 21.4.

43. Signing of Contract

- 43.1 Promptly after notification, the Purchaser shall send the successful Bidder the Agreement and the Special Conditions of Contract.
- 43.2 Within twenty-eight (28) days of receipt of the Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.
- 43.3 Notwithstanding ITB 43.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, where such export restrictions arise from trade regulations from a country supplying those products/goods, systems or services, the Bidder shall not be bound by its bid, always provided, always provided, however, that the Bidder can demonstrate to the satisfaction of the Purchaser and of the Bank that signing of the Contract Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract.

44. Performance Security

- 44.1 Within twenty eight (28) days of the receipt of notification of award from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the GCC, using for that purpose the Performance Security Form included in Section IX Contract forms, or another Form acceptable to the Purchaser. The Purchaser shall promptly notify the name of the winning Bidder to each unsuccessful Bidder and discharge the Bid Securities of the unsuccessful bidders pursuant to ITB Sub-Clause 21.4.
- 44.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security or execution of the Bid-Securing Declaration. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose offer is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.

Section II. Bidding Data Sheet (BDS)

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

ITB Clause Reference	A. General																																		
ITB 1.1	Name of Purchaser: Ministry of Health and Population, Department of Health Services, Logistics Management Division, Pachali, Teku, Kathmandu, Nepal. Type of goods: Hospital and Laboratory Equipment The name and identification number of the Contracts : NHSP-II/G/ICB-31/Procurement of Hospital and Laboratory Equipment (including Anaesthesia Machine, CT Scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)/ 2012-13 The contract package has been divided in 22 slices as under: <table border="1"> <thead> <tr> <th>Slice No</th><th>Item Description</th></tr> </thead> <tbody> <tr> <td>31.1</td><td>Anaesthesia Machine</td></tr> <tr> <td>31.2</td><td>Autoclave Electric</td></tr> <tr> <td>31.3</td><td>Steriliser Steam Pressure Electric Type 25L</td></tr> <tr> <td>31.4</td><td>Intended Deletion</td></tr> <tr> <td>31.5</td><td>Pulse Oxymeter</td></tr> <tr> <td>31.6</td><td>CT Scan 16 Slice</td></tr> <tr> <td>31.7</td><td>Intended deletion</td></tr> <tr> <td>31.8</td><td>Dental Chair</td></tr> <tr> <td>31.9</td><td>ICU Ventilator for Children & Adult Pneumatic</td></tr> <tr> <td>31.10</td><td>Operating Table</td></tr> <tr> <td>31.11.1</td><td>USG Portable Colour Doppler 3 probes</td></tr> <tr> <td>31.11.2</td><td>High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes</td></tr> <tr> <td>31.11.3</td><td>Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes</td></tr> <tr> <td>31.12</td><td>Video Arthroscopy System</td></tr> <tr> <td>31.13</td><td>Flexible Naso Pharyngoscope with halogen light</td></tr> <tr> <td>31.14</td><td>X-Ray C-Arm Mobile</td></tr> </tbody> </table>	Slice No	Item Description	31.1	Anaesthesia Machine	31.2	Autoclave Electric	31.3	Steriliser Steam Pressure Electric Type 25L	31.4	Intended Deletion	31.5	Pulse Oxymeter	31.6	CT Scan 16 Slice	31.7	Intended deletion	31.8	Dental Chair	31.9	ICU Ventilator for Children & Adult Pneumatic	31.10	Operating Table	31.11.1	USG Portable Colour Doppler 3 probes	31.11.2	High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes	31.11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes	31.12	Video Arthroscopy System	31.13	Flexible Naso Pharyngoscope with halogen light	31.14	X-Ray C-Arm Mobile
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31.10	Operating Table																																		
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31.13	Flexible Naso Pharyngoscope with halogen light																																		
31.14	X-Ray C-Arm Mobile																																		

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31.21	Flat Panel Digital Fluoroscopy																		
31.22	Motorised High Frequency Portable Digital X-Ray																		
ITB 1.2	The term “slice” has the same meaning as “lot” in Section I, ITB and Section VII, General Conditions of Contract																		
ITB 2.1	The Borrower is: Government of Nepal (GoN) Loan or Credit Number: Cr. 4707-NEP & Gr. H 557-NEP The name of the Project : Nepal Health Sector Program 2 (NHSP-2)																		
ITB 4.3-4.4	A list of debarred firms is available at http://www.worldbank.org/debarr																		
	B. Contents of Bidding Documents																		
ITB 7.1	For <u>Clarification of bid purposes</u> only the Purchaser’s address is: Attention: Director, Logistics Management Division, Department of Health Services, Address: Teku, Kathmandu City: Kathmandu Country: Nepal Telephone: 977-01-4261768 Facsimile number: 977-01-4261413 Electronic mail address: director@dohslmd.gov.np																		
	C. Preparation of Bids																		
ITB 10.1	The language of the bid is: English.																		
ITB 11.1 (h)	The Bidder shall submit the following additional documents in its bid: None																		
ITB 13.1	Alternative Bids shall not be considered.																		

ITB 14.5	The Incoterms edition is: 2000															
ITB 14.6 (b) (i)	Place of Destination: DDU Birgunj, Nepal or Tribhuvan International Airport, Kathmandu, Nepal (to be specified by the bidder)															
ITB 14.6 (c) (iii)	Place of Destination: Warehouse of the goods already imported in Nepal,															
ITB 14.6 (a) (iii);(b)(ii) and (c)(v)	“Final destination (Project Site)”: As specified in Section VI. Schedule of Requirements “List of Goods and Delivery Schedule”															
ITB 14.6 (b) (iii)	In addition to the DDU price specified in ITB 14.6 (b)(i), the price of the Goods manufactured outside the Purchaser’s Country shall be quoted : DDU Final destination (project sites)															
ITB 14.7	The prices quoted by the Bidder <i>shall not</i> be adjustable.															
ITB 14.8	Prices quoted for each slice shall correspond at least to 100 % of the items specified for each slice. Prices quoted for each item of a slice shall correspond at least to 100 % of the quantities specified for this item in the slice.															
ITB 15.1	The Bidder is required to quote in Nepalese Rupees															
ITB 18.3	Period of time the Goods are expected to be functioning (for the purpose of spare parts): 5 years															
ITB 19.1 (a)	Manufacturer’s authorization to the bidder is required for as shown in Part VI Schedule of Requirements, 2 List of Related Services and Completion Schedule.															
ITB 19.1 (b)	After sales service (maintenance, repair and spare parts-stocking obligations) is required as shown in Section VI, Schedule of Requirements, 2 List of Related Services and Completion Schedule															
ITB 20.1	The bid validity period shall be: 150 days after the deadline for bid submission (i.e. up to 15 September 2013).															
ITB 21.1	Bid shall include a Bid Security only in the form of a Bank Guarantee and in the format as provided in the template included in Section IV Bidding Forms. In case of a Bid Security issued by a foreign bank, the same shall be counter-guaranteed by a Class A Commercial Bank in Nepal.															
ITB 21.2	The amount of the Bid Security shall be not less than the amounts shown in the Table below and must be valid for twenty-eight (28) days after the end of the bid validity period (i.e. till 13 October 2013). <table><tr><th colspan="3">ICB 31 Hospital Equipment (including Anaesthesia Machine, CT scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)</th></tr><tr><th>Slice No</th><th>Item Description</th><th>Bid security amount in NPR</th></tr><tr><td>31.1</td><td>Anaesthesia Machine</td><td>400,000.00</td></tr><tr><td>31.2</td><td>Autoclave Electric</td><td>80,000.00</td></tr><tr><td>31.3</td><td>Steriliser Steam Pressure Electric Type 25L</td><td>140,000.00</td></tr></table>	ICB 31 Hospital Equipment (including Anaesthesia Machine, CT scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)			Slice No	Item Description	Bid security amount in NPR	31.1	Anaesthesia Machine	400,000.00	31.2	Autoclave Electric	80,000.00	31.3	Steriliser Steam Pressure Electric Type 25L	140,000.00
ICB 31 Hospital Equipment (including Anaesthesia Machine, CT scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)																
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31.1	Anaesthesia Machine	400,000.00														
31.2	Autoclave Electric	80,000.00														
31.3	Steriliser Steam Pressure Electric Type 25L	140,000.00														

	31.4	Intended Deletion	
	31.5	Pulse Oxymeter	65,000.00
	31.6	CT Scan 16 Slice	5,500,000.00
	31.7	Intended deletion	
	31.8	Dental Chair	175,000.00
	31.9	ICU Ventilator for Children & Adult Pneumatic	800,000.00
	31.10	Operation Table	110,000.00
	31.11.1	USG Portable Colour Doppler 3 probes	2,700,000.00
	31.11.2	High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes	
	31.11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes	
	31.12	Video Arthroscopy System	280,000.00
	31.13	Flexible Naso Pharyngoscope with halogen light	250,000.00
	31.14	X-Ray C-Arm Mobile	2,300,000.00
	31.15	X-Ray Machine 300mA	11,000,000.00
	31.16	X-Ray Machine 500 mA, Fixed DR with film printer	1,100,000.00
	31.17	Blood Culture System	510,000.00
	31.18	Diathermy Electrosurgical 300W	275,000.00
	31.19	Video Gastro, Duodeno, Colono with Camera System	850,000.00
	31.20	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories	1,800,000.00
	31.21	Flat Panel Digital Fluoroscopy	1,250,000.00
	31.22	Motorised High Frequency Portable Digital X-Ray	600,000.00
Notes: A single bid security may be provided for the total of all slices bid for. Bidders may also provide multiple bid securities for any combination of slices or bid security singly per slice. Bid securities in another freely convertible currency, apart from NPR will be converted into NPR at the Selling Exchange rate for that currency on the date specified in ITB Clause 34.1. (21 March 2013). Insufficiency of bid security amount due to conversion of other currencies will result in disqualification of the bid for the slices for which such bid security was provided.			
ITB 21.7	If the Bidder incurs any of the actions prescribed in sub-paragraphs (a) or (b) of this provision, the Borrower will declare the Bidder ineligible to be awarded contracts by the Purchaser for a period of two (2) calendar years.		
ITB 22.1	In addition to the original of the bid, the number of copies is: One A copy is defined as a complete copy of the Original Bid including copies of all the documents contained within the Original Bid. Failure to provide a copy will result in disqualification of entire bid.		

	D. Submission and Opening of Bids
ITB 23.1	Bidders shall not have the option of submitting their bids electronically.
ITB 23.2 (c)	The inner and outer envelopes shall bear the following additional identification marks: IFB No: NHSP-II/G/ICB-31/Procurement of Hospital Equipment (including Anaesthesia Machine, CT scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)/ 2012-13
ITB 24.1	For bid submission purposes, the Purchaser's address is: Attention: Director, Logistics Management Division. Address: Ministry of Health and Population, Department of Health Services, Logistics Management Division, Pachali, Teku City: Kathmandu ; Country: Nepal The deadline for the submission of bids is: Date: 18 April 2013 Time: 1200 Hours (Nepal Time) If the specified date for submission and opening of the bid falls on a government holiday, then the same time of the next working day shall be considered for such events. The bid validity and validity of bid security remain unchanged unless amended by another notice.
ITB 27.1	The bid opening shall take place at: Department of Health Services, Logistics Management Division Street Address: Pachali, Teku Floor/ Room number: First floor, Conference Hall of Procurement Section. City: Kathmandu Country: Nepal Date: 18 April 2013 Time: 12:30 Hours (Nepal Time)
	E. Evaluation and Comparison of Bids
ITB 34.1	Bid prices expressed in different currencies shall be converted to: Nepalese Rupees (NPR) The source of exchange rate shall be: Nepal Rastra Bank, Foreign Currency Exchange Rate (Selling Rate) available at website: www.nrb.org.np The date for the exchange rate shall be 28 days prior to closing of bids: 21 March 2013
ITB 35.1	Domestic preference shall be a bid evaluation factor as specified in Section III, Evaluation and Qualification Criteria.
ITB 36.3(a)	Bids will be evaluated slice by slice and in no case will a slice be split and divided among bidders. In case a slice contains more than one item all items in that slice must be substantially responsive. Only those slices in which all the items are substantially responsive will be considered substantially responsive. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. An item not listed in the Price

	Schedule shall be assumed to be not included in the bid, and provided that the bid is substantially responsive, the average price of the item quoted by substantially responsive bidders will be added to the bid price and the equivalent total cost of the bid so determined will be used for price comparison.
ITB 36.3(d)	The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria: For details refer to Schedule III, Evaluation and Qualification Criteria; (a) deviation in Delivery schedule: Yes up to 10 weeks (b) deviation in payment schedule: No deviation allowed (c) the cost of required, mandatory spare parts, user training and maintenance service: Costs as specified to be required in Section VI to be included in the price schedule. (d) the availability in the Purchaser's Country of spare parts and after-sales services for the equipment offered in the bid: A signed, written declaration by the Bidder to this effect must be included as part of the Bid. (e) the projected operating and maintenance costs during the life of the equipment : Not applicable (f) the performance and productivity of the equipment offered; Not applicable
ITB 36.6	Bidders shall quote separate prices for individual Slices
	F. Award of Contract
ITB 41.1	The maximum percentage by which quantities may be increased is: 25%. The maximum percentage by which quantities may be decreased is: 25%.

Section III. Evaluation and Qualification Criteria

Contents

1. Domestic Preference (ITB 35.1)
2. Evaluation Criteria (ITB 36.3 (d))
3. Multiple Contracts (ITB 36.6)
4. Post qualification Requirements (ITB 38.2)

1. Domestic Preference (ITB 35.1)

The Purchaser will grant a margin of preference to goods manufactured in the Purchaser's country for the purpose of bid comparison, in accordance with the procedures outlined in subsequent paragraphs.

Bids will be classified in one of three groups, as follows:

- (a) **Group A:** Bids offering goods manufactured in the Purchaser's Country, for which (i) labor, raw materials, and components from within the Purchaser's Country account for more than thirty (30) percent of the EXW price; and (ii) the production facility in which they will be manufactured or assembled has been engaged in manufacturing or assembling such goods at least prior to the date of bid submission. Only those certificates issued by the Department of Industry of the Government of Nepal certifying the credentials of a local manufacturer qualifying for domestic preference will be acceptable. Certification from other agencies will not be considered
- (b) **Group B:** All other bids offering Goods manufactured in the Purchaser's Country.
- (c) **Group C:** Bids offering Goods manufactured outside the Purchaser's Country that have been already imported or that will be imported.

To facilitate this classification by the Purchaser, the Bidder shall complete whichever version of the Price Schedule furnished in the Bidding Documents is appropriate provided, however, that the completion of an incorrect version of the Price Schedule by the Bidder shall not result in rejection of its bid, but merely in the Purchaser's reclassification of the bid into its appropriate bid group.

The Purchaser will first review the bids to confirm the appropriateness of, and to modify as necessary, the bid group classification to which bidders assigned their bids in preparing their Bid Forms and Price Schedules.

All evaluated bids in each group will then be compared to determine the lowest evaluated bid of each group. Such lowest evaluated bids shall be compared with each other and if as a result of this comparison a bid from Group A or Group B is the lowest, it shall be selected for the award.

If, as a result of the preceding comparison, the lowest evaluated bid is from Group C, the lowest evaluated bid from Group C bids will then be further compared with the lowest evaluated bid from Group A, after adding to the evaluated bid price of goods offered in the bid for Group C, for the purpose of further comparison only an amount equal to ten (10) percent of the CIP Birgunj, Nepal or Kathmandu International Airport, Nepal bid price. The lowest-evaluated bid determined from this last comparison shall be selected for the award."

2. Evaluation Criteria (ITB 36.3 (d))

The Purchaser's evaluation of a bid will take into account, in addition to the Bid Price quoted in accordance with ITB Clause 14.6, the following factors as specified in ITB Sub-Clause 36.3(d) and in BDS referring to ITB 36.3(d), using the following criteria and methodologies.

- (a) Delivery schedule:

The adjustment per week for delivery delays beyond the period specified in the Schedule of Requirement is one percent (1%) of the quoted price per week. Delivery delays in excess of 10 weeks beyond the period specified in the Schedule of Requirement will not be acceptable and will cause the Bid to be declared as non-responsive.

(b) Deviation in payment schedule:

The SCC stipulates the payment schedule specified by the Purchaser. If a bid deviates from the schedule such deviation is not considered acceptable to the Purchaser. Bids deviating from the given payment schedule will be considered non-responsive.

(c) Cost of mandatory spare parts, user training and maintenance service as specified to be required in Section VI, Schedule of Requirements, will be considered during evaluation.

(d) Availability in the Purchaser's Country of spare parts and after sales services for equipment as specified to be required in Section VI, Schedule of Requirements must be offered for three years beyond the stated warranty period in the bid.

An adjustment equal to the cost to the Purchaser of establishing the minimum service facilities and parts inventories, as outlined in BDS Sub-Clause 36.3(d), if quoted separately, shall be added to the bid price, for evaluation purposes only.

Bidders not offering/or committing to provide these services will be considered non-responsive.

3. Multiple Contracts (ITB 36.6)

The Purchaser shall award multiple contracts to the Bidder that offers the lowest evaluated combination of bids (one contract per bid) and meets the post-qualification criteria (this Section III, Sub-Section ITB 38.2 Post-Qualification Requirements)

The Purchaser shall:

- (a) evaluate only slices or contracts that include at least the quantity per item as specified in ITB Sub Clause 14.8
- (b) take into account:
 - (i) the lowest-evaluated bid for each slice and
 - (ii) the price reduction per slice and the methodology for its application as offered by the Bidder in its bid"

4. Post qualification Requirements (ITB 38.2) (also refer to ITB 19.1(c))

After determining the lowest-evaluated bid in accordance with ITB Sub-Clause 37.1, the Purchaser shall carry out the post qualification of the Bidder in accordance with ITB Clause 38, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications.

(a) Financial Capability

If the bidder is not the manufacturer, its average annual turnover over the past two years must be at least equivalent to the quoted value of offered responsive goods intended for award in the first year. The bidder shall demonstrate compliance with this requirement through submission of certified copies of the annual audited statements for the past two years. In addition, the average annual turnover of the proposed manufacturers over the past three years shall not be less than five (5) times the value of offered responsive goods intended for award in the first year, except for the slices or items of a slice mentioned below.

The bidder shall demonstrate compliance with this requirement through submission of certified copies of the annual audited statement of the manufacturer of equipment for the past three years.

If the bidder is the manufacturer, its average annual turnover over the past three years shall not be less than 5 times the value of offered responsive goods intended for award in the first year. The bidder shall demonstrate compliance with this requirement through submission of certified copies of the annual audited financial statements for the past three years.

Audited financial statement(s) of the manufacturer(s) for items under all slices are required.

The bidder and the manufacturer not meeting the above stated minimum financial capability will be considered non-responsive.

(b) Experience and Technical Capacity

The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s):

- i) If the Bidder is not the manufacturer of the offered goods then the manufacturer should have been producing similar equipment for at least 5 years at the time of bid submission and similar type of equipment.
- ii) The Bidder shall also commit in writing to make available required spares and maintenance services for three years beyond the stated warranty period.
- iii) The Bidder and/ or its local agent and/or the local office of the offered equipment's manufacturer(s) shall have adequate maintenance and service centres in Nepal for items for which this is specified as par Part VI, Schedule of Requirements, 2. List of requirements for manufacturer's authorization, warranty period, related services and completion schedule. If not available, a plan to provide service and maintenance to the offered equipment shall be submitted.

(c) The Bidder shall furnish documentary evidence in the form of manufacturers' catalogues and other appropriate documentation to demonstrate that the Goods it offers meet the requirements of the technical specifications.

Section IV. Bidding Forms

Table of Forms

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Bidder Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Bid Submission]*

ICB No.: *[insert number of bidding process]*

Page _____ of _____ pages

1. Bidder's Legal Name <i>[insert Bidder's legal name]</i>
2. In case of JV, legal name of each party: <i>[insert legal name of each party in JV]</i>
3. Bidder's actual or intended Country of Registration: <i>[insert actual or intended Country of Registration]</i>
4. Bidder's Year of Registration: <i>[insert Bidder's year of registration]</i>
5. Bidder's Legal Address in Country of Registration: <i>[insert Bidder's legal address in country of registration]</i>
6. Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
7. Attached are copies of original documents of: <i>[check the box(es) of the attached original documents]</i> ☐ Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB Sub-Clauses 4.1 and 4.2. ☐ In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB Sub-Clause 4.1. ☐ In case of government owned entity from the Purchaser's country, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB Sub-Clause 4.5.

Joint Venture Partner Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below].

Date: *[insert date (as day, month and year) of Bid Submission]*

ICB No.: *[insert number of bidding process]*

Page _____ of _____ pages

1. Bidder's Legal Name: <i>[insert Bidder's legal name]</i>
2. JV's Party legal name: <i>[insert JV's Party legal name]</i>
3. JV's Party Country of Registration: <i>[insert JV's Party country of registration]</i>
4. JV's Party Year of Registration: <i>[insert JV's Party year of registration]</i>
5. JV's Party Legal Address in Country of Registration: <i>[insert JV's Party legal address in country of registration]</i>
6. JV's Party Authorized Representative Information Name: <i>[insert name of JV's Party authorized representative]</i> Address: <i>[insert address of JV's Party authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV's Party authorized representative]</i> Email Address: <i>[insert email address of JV's Party authorized representative]</i>
7. Attached are copies of original documents of: <i>[check the box(es) of the attached original documents]</i> ☐ Articles of Incorporation or Registration of firm named in 2, above, in accordance with ITB Sub-Clauses 4.1 and 4.2. ☐ In case of government owned entity from the Purchaser's country, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB Sub-Clause 4.5.

Bid Submission Form

[The Bidder shall fill in this Form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Bid Submission]*

ICB No.: *[insert number of bidding process]*

Invitation for Bid No.: *[insert No of IFB]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Purchaser]*

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda No.: _____ *[insert the number and issuing date of each Addenda]*;
- (b) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services _____ *[insert a brief description of the Goods and Related Services]*;
- (c) The total price of our Bid, excluding any discounts offered in item (d) below, is: _____ *[insert the total bid price in words and figures, indicating the various amounts and the respective currencies]*;
- (d) The discounts offered and the methodology for their application are:

Discounts. If our bid is accepted, the following discounts shall apply. _____ *[Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]*

Methodology of Application of the Discounts. The discounts shall be applied using the following method: _____ *[Specify in detail the method that shall be used to apply the discounts]*;

- (e) Our bid shall be valid for the period of time specified in ITB Sub-Clause 20.1, from the date fixed for the bid submission deadline in accordance with ITB Sub-Clause 24.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause 44 and GCC Clause 18 for the due performance of the Contract;
- (g) We, including any subcontractors or suppliers for any part of the contract, have nationality from eligible countries _____ *[insert the nationality of the Bidder, including that of all parties that comprise the Bidder, if the Bidder is a JV, and the nationality each subcontractor and supplier]*
- (h) We have no conflict of interest in accordance with ITB Sub-Clause 4.2;
- (i) Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the contract—has not been declared ineligible by the Bank, under the Purchaser's country laws or official regulations, in accordance with ITB Sub-Clause 4.3;

- (j) The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(If none has been paid or is to be paid, indicate “none.”)

- (k) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (l) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed: _____ *[insert signature of person whose name and capacity are shown]*
 In the capacity of _____ *[insert legal capacity of person signing the Bid Submission Form]*

Name: _____ *[insert complete name of person signing the Bid Submission Form]*

Duly authorized to sign the bid for and on behalf of: _____ *[insert complete name of Bidder]*

Dated on _____ day of _____, _____ *[insert date of signing]*

Price Schedule Forms

*[The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the **Price Schedules** shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements.]*

Price Schedule: Goods Manufactured Outside the Purchaser's Country, to be Imported

(Group C bids, goods to be imported)							Date: _____ ICB No: _____	
Currencies in accordance with ITB Sub-Clause 15							Alternative No: _____ Page N° _____ of _____	

1	2	3	4	5	6	7	8	9
Slice No	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price*) DDU <i>Birgunj, Nepal or Tribhuvan International Airport, Nepal (To be Specified by the bidder)</i> in accordance with ITB 14.6(b)(i)	DDU <i>Birgunj, Nepal or Tribhuvan International Airport, Nepal</i> Price per line item (Col. 5x6)	Price per line item for inland transportation and other services required in Nepal to convey the Goods to their final destinations as specified in Bidding Documents, Section VI in NPR.	Total Price per Line item DDU final destinations as specified in Bidding Documents, Section VI (Col. 7+8)
31.1	Anaesthesia Machine			10 Units				
31.2	Autoclave Electric			100 Units				
31.3	Steriliser Steam Pressure Electric Type 25L			150 Units				
31.4	Intended Deletion							
31.5	Pulse Oxymeter			70 Units				
31.6	CT Scan 16 Slice			4 Units				
31.7	Intended deletion							
31.8	Dental Chair			10 Units				
31.9	ICU Ventilator for Children & Adult Pneumatic			20 Units				
31.10	Operation Table			10 Units				
31.11.1	USG Portable Colour Doppler 3 probes			10 Units				
31.11.2	High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes			1 Unit				

1	2	3	4	5	6	7	8	9
Slice No	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price*) DDU <i>Birgunj, Nepal or Tribhuvan International Airport, Nepal (To be Specified by the bidder)</i> in accordance with ITB 14.6(b)(i)	DDU <i>Birgunj, Nepal or Tribhuvan International Airport, Nepal</i> Price per line item (Col. 5x6)	Price per line item for inland transportation and other services required in Nepal to convey the Goods to their final destinations as specified in Bidding Documents, Section VI in NPR.	Total Price per Line item DDU final destinations as specified in Bidding Documents, Section VI (Col. 7+8)
31.11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes			1 Unit				
31.12	Video Arthroscopy System			2 Units				
31.13	Flexible Naso Pharyngoscope with halogen light			10 Units				
31.14	X-Ray C-Arm Mobile			8 Units				
31.15	X-Ray Machine 300mA			45 Units				
31.16	X-Ray Machine 500 mA, Fixed DR with film printer			2 Units				
31.17	Blood Culture System			2 Units				
31.18	Diathermy Electrosurgical 300W			14 Units				
31.19	Video Gastro, Duodeno, Colono with Camera System			2 Units				
31.20	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			1 Unit				
31.21	Flat Panel Digital Fluoroscopy			1 Unit				
31.22	Motorised High Frequency Portable Digital X-Ray			1 Unit				
							Total Price	

Name of Bidder Signature of Bidder Date

*) The unit price must include the cost of on-site installation/commissioning and user training for items for which this is specified as per Part VI, Schedule of Requirements, 2. List of requirements for manufacturer's authorization, warranty period, related services and completion schedule

Price Schedule: Goods Manufactured Outside the Purchaser's Country, already imported

(Group C bids, Goods already imported)

Currencies in accordance with ITB Sub-Clause 15

Date: _____

ICB No: _____

Alternative No: _____

Page N° _____ of _____

1	2	3	4	5	6	7	8	9	10	11	12
Slice No	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price*) DDU including Custom Duties and Import Taxes paid, in accordance with ITB 14.6(c)(i)	Custom Duties and Import Taxes paid per unit in accordance with ITB 14.6(c)(ii), [to be supported by documents]	Unit Price*) net of custom duties and import taxes, in accordance with ITB 14.6(c)(iii) (Col. 6 minus Col.7)	Price per line item net of Custom Duties and Import Taxes paid, in accordance with ITB 14.6(c)(i) (Col. 5'8)	Price per line item for inland transportation and other services required in Nepal to convey the goods to their final destinations as specified in Bidding Documents, Section VI ITB 14.6 (c)(v)	Sales and other taxes paid or payable per item if Contract is awarded (in accordance with ITB 14.6(c)(iv)	Total Price per line item DDU final destinations as specified in Bidding Documents, Section VI (Col. 9+10)
31.1	Anaesthesia Machine			10 Units							
31.2	Autoclave Electric			100 Units							
31.3	Steriliser Steam Pressure Electric Type 25L			150 Units							
31.4	Intended Deletion										
31.5	Pulse Oxymeter			70 Units							
31.6	CT Scan 16 Slice			4 Units							
31.7	Intended deletion										
31.8	Dental Chair			10 Units							
31.9	ICU Ventilator for Children & Adult Pneumatic			20 Units							
31.10	Operation Table			10 Units							
31.11.1	USG Portable Colour Doppler 3 probes			10 Units							

1	2	3	4	5	6	7	8	9	10	11	12
Slice No	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price*) DDU including Custom Duties and Import Taxes paid, in accordance with ITB 14.6(c)(i)	Custom Duties and Import Taxes paid per unit in accordance with ITB 14.6(c)(ii) , [to be supported by documents]	Unit Price*) net of custom duties and import taxes, in accordance with ITB 14.6 (c) (iii) (Col. 6 minus Col.7)	Price per line item net of Custom Duties and Import Taxes paid, in accordance with ITB 14.6(c)(i) (Col. 5'8)	Price per line item for inland transportation and other services required in Nepal to convey the goods to their final destinations as specified in Bidding Documents, Section VI ITB 14.6 (c)(v)	Sales and other taxes paid or payable per item if Contract is awarded (in accordance with ITB 14.6(c)(iv)	Total Price per line item DDU final destinations as specified in Bidding Documents, Section VI (Col. 9+10)
31.11.2	High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes			1 Unit							
31.11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes			1 Unit							
31.12	Video Arthroscopy System			2 Units							
31.13	Flexible Naso Pharyngoscope with halogen light			10 Units							
31.14	X-Ray C-Arm Mobile			8 Units							
31.15	X-Ray Machine 300mA			45 Units							
31.16	X-Ray Machine 500 mA, Fixed DR with film printer			2 Units							
31.17	Blood Culture System			2 Units							
31.18	Diathermy Electrosurgical 300W			14 Units							
31.19	Video Gastro, Duodeno, Colono with Camera System			2 Units							

1	2	3	4	5	6	7	8	9	10	11	12
Slice No	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price*) DDU including Custom Duties and Import Taxes paid, in accordance with ITB 14.6(c)(i)	Custom Duties and Import Taxes paid per unit in accordance with ITB 14.6(c)(ii) , [to be supported by documents]	Unit Price*) net of custom duties and import taxes, in accordance with ITB 14.6 (c) (iii) (Col. 6 minus Col.7)	Price per line item net of Custom Duties and Import Taxes paid, in accordance with ITB 14.6(c)(i) (Col. 5'8)	Price per line item for inland transportation and other services required in Nepal to convey the goods to their final destinations as specified in Bidding Documents, Section VI ITB 14.6 (c)(v)	Sales and other taxes paid or payable per item if Contract is awarded (in accordance with ITB 14.6(c)(iv)	Total Price per line item DDU final destinations as specified in Bidding Documents, Section VI (Col. 9+10)
31.20	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			1 Unit							
31.21	Flat Panel Digital Fluoroscopy			1 Unit							
31.22	Motorised High Frequency Portable Digital X-Ray			1 Unit							
										Total Bid Price	

Name of Bidder Signature of Bidder Date

*) The unit price must include the cost of on-site installation/commissioning and user training for items for which this is specified as par Part VI, Schedule of Requirements, 2.List of requirements for manufacturer's authorization, warranty period, related services and completion schedule

Price Schedule: Goods Manufactured in the Purchaser's Country

Purchaser's Country 		(Group A and B bids) Currencies in accordance with ITB Sub-Clause 15				Date: _____ ICB No: _____ Alternative No: _____ Page N° _____ of _____			
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1	2	3	4	5	6	7	8	9	10
Slice no.	Description of Goods	Delivery Date	Quantity and physical unit	Unit price*) EXW	Total EXW price per line item (Col. 4'5)	Price per line item for inland transportation and other services required in Nepal to convey the Goods to their final destinations as specified in Bidding Documents, Section VI	Cost of local labor, raw materials and components from with origin in Nepal % of Col. 5	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.6(a)(ii))	Total Price per line item (Col. 6+7)
31.1	Anaesthesia Machine		10 Units						
31.2	Autoclave Electric		100 Units						
31.3	Steriliser Steam Pressure Electric Type 25L		150 Units						
31.4	Intended Deletion								
31.5	Pulse Oxymeter		70 Units						
31.6	CT Scan 16 Slice		4 Units						
31.7	Intended deletion								
31.8	Dental Chair		10 Units						
31.9	ICU Ventilator for Children & Adult Pneumatic		20 Units						
31.10	Operation Table		10 Units						
31.11.1	USG Portable Colour Doppler 3 probes		10 Units						
31.11.2	High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes		1 Unit						
31.11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes		1 Unit						
31.12	Video Arthroscopy System		2 Units						
31.13	Flexible Naso Pharyngoscope with halogen light		10 Units						

1	2	3	4	5	6	7	8	9	10
Slice no.	Description of Goods	Delivery Date	Quantity and physical unit	Unit price*) EXW	Total EXW price per line item (Col. 4'5)	Price per line item for inland transportation and other services required in Nepal to convey the Goods to their final destinations as specified in Bidding Documents, Section VI	Cost of local labor, raw materials and components from with origin in Nepal % of Col. 5	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.6(a)(ii))	Total Price per line item (Col. 6+7)
31.14	X-Ray C-Arm Mobile		8 Units						
31.15	X-Ray Machine 300mA		45 Units						
31.16	X-Ray Machine 500 mA, Fixed DR with film printer		2 Units						
31.17	Blood Culture System		2 Units						
31.18	Diathermy Electrosurgical 300W		14 Units						
31.19	Video Gastro, Duodeno, Colono with Camera System		2 Units						
31.20	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories		1 Unit						
31.21	Flat Panel Digital Fluoroscopy		1 Unit						
31.22	Motorised High Frequency Portable Digital X-Ray		1 Unit						
								Total Price	

Name of Bidder Signature of Bidder Date

*) The unit price must include the cost of on-site installation/commissioning and user training for items for which this is specified as par Part VI, Schedule of Requirements, 2. List of requirements for manufacturer's authorization, warranty period, related services and completion schedule

Price and Completion Schedule - Related Services

Currencies in accordance with ITB Sub-Clause 15						Date: _____
						ICB No: _____
						Alternative No: _____
						Page N° _____ of _____
1	2	3	4	5	6	7
Slice and item number	Description of Services: Preventive and corrective maintenance during warranty	Country of Origin	Delivery Date at place of Final destination	Quantity of equipment units to be maintained	Unit price for period of warranty	Total Price per Service (Col. 5*6 or estimate)
31.1	Anaesthesia Machine	N/A	N/A	10 Units		
31.2	Autoclave Electric	N/A	N/A	100 Units		
31.3	Steriliser Steam Pressure Electric Type 25L	N/A	N/A	150 Units		
31.4	Intended deletion					
31.5	Pulse Oxymeter	N/A	N/A	70 Units		
31.6	CT Scan 16 Slice	N/A	N/A	4 Units		
31.7	Intended deletion					
31.8	Dental Chair	N/A	N/A	10 Units		
31.9	ICU Ventilator for Children & Adult Pneumatic	N/A	N/A	20 Units		
31.10	Operation Table	N/A	N/A	10 Units		
31.11.1	USG Portable Colour Doppler 3 probes	N/A	N/A	10 Units		
31.11.2	High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes	N/A	N/A	1 Unit		
31.11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes	N/A	N/A	1 Unit		
31.12	Video Arthroscopy System	N/A	N/A	2 Units		
31.13	Flexible Naso Pharyngoscope with halogen light	N/A	N/A	10 Units		

31.14	X-Ray C-Arm Mobile	N/A	N/A	8 Units		
31.15	X-Ray Machine 300mA	N/A	N/A	45 Units		
31.16	X-Ray Machine 500 mA, Fixed DR with film printer	N/A	N/A	2 Units		
31.17	Blood Culture System	N/A	N/A	2 Units		
31.18	Diathermy Electrosurgical 300W	N/A	N/A	14 Units		
31.19	Video Gastro, Duodeno, Colono with Camera System	N/A	N/A	2 Units		
31.20	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories	N/A	N/A	1 Unit		
31.21	Flat Panel Digital Fluoroscopy	N/A	N/A	1 Unit		
31.22	Motorised High Frequency Portable Digital X-Ray	N/A	N/A	1 Unit		
Total Bid Price						

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert date]*

Bid Security (Bank Guarantee)

[The Bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]

[Bank's Name, and Address of Issuing Branch or Office]

Beneficiary: _____ *[Name and Address of Purchaser]*

Date: _____

BID GUARANTEE No.: _____

We have been informed that *[name of the Bidder]* (hereinafter called "the Bidder") has submitted to you its bid dated (hereinafter called "the Bid") for the execution of *[name of contract]* under Invitation for Bids No. *[IFB number]* ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we *[name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[amount in figures]* (*[amount in words]*) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or
- (b) having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity, (i) fails or refuses to execute the Contract Form; or (ii) fails or refuses to furnish the performance security, if required, in accordance with the Instructions to Bidders.

This guarantee will expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful bidder; or (ii) twenty-eight days after the expiration of the Bidder's Bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. URDG 758.

[signature(s)]

Bid Security (Bid Bond)

(Not Applicable)

Bid-Securing Declaration

(Not Applicable)

Manufacturer's Authorization

*[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the **BDS.**]*

Date: *[insert date (as day, month and year) of Bid Submission]*

ICB No.: *[insert number of bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Purchaser]*

WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Dated on _____ day of _____, _____ *[insert date of signing]*

Section V. Eligible Countries

Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement

1. In accordance with Para 1.8 of the Guidelines: Procurement under IBRD Loans and IDA Credits, dated May 2004, and Revised October 2006, the Bank permits firms and individuals from all countries to offer goods, works and services for Bank-financed projects. As an exception, firms of a Country or goods manufactured in a Country may be excluded if:

Para 1.8 (a) (i): as a matter of law or official regulation, the Borrower's Country prohibits commercial relations with that Country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of the Goods or Works required, or

Para 1.8 (a) (ii): by an Act of Compliance with a Decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that Country or any payments to persons or entities in that Country.
2. For the information of bidders, at the present time firms, goods and services from the following countries are excluded from this bidding:
 - (a) With reference to paragraph 1.8 (a) (i) of the Guidelines:
Andorra, Cuba, Democratic Peoples Republic of Korea (North Korea), Liechtenstein, Monaco, Nauru, San Marino, and Tuvalu.
 - (b) With reference to paragraph 1.8 (a) (ii) of the Guidelines:
None

PART 2 – Supply Requirements

Section VI. Schedule of Requirements

Contents

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2. List of requirements for manufacturer's authorization, warranty period, related services and completion schedule	60
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1. List of Goods and Delivery Schedule

The Bidders are required to bid for total number of units/sets as per annual requirement according to the delivery schedule.

Slice no.	Description of Goods	1 st Year Quantity	2 nd Year Quantity	Total Quantity	Physical unit	Final (Project Site) Destination (as specified in BDS)	DDU Delivery Date as per Incoterms 2000	
							Required Delivery Dates	Bidder's offered Delivery date [to be provided by the bidder]
ICB 31 Hospital Equipment (including Anaesthesia Machine, CT scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)								
1	Anaesthesia Machine	10	0	10	unit	Central, Regional and Zonal Hospitals	First Year supplies within 180 days of signing of supply contract and Second Year supplies by 30 June 2014	
2	Autoclave Electric	50	50	100	unit	District Hospitals and PHCs		
3	Steriliser Steam Pressure Electric Type 25L	75	75	150	unit	District, Regional and Zonal Hospitals		
4	Intended deletion							
5	Pulse Oxymeter	40	30	70	unit	District, Regional and Zonal Hospitals		
6	CT Scan 16 Slice	2	2	4	unit	Regional and Zonal Hospitals		
7	Intended Deletion							
8	Dental Chair	5	5	10	unit	District, Regional and Zonal Hospitals		
9	ICU Ventilator for Children & Adult Pneumatic	10	10	20	unit	Central, Regional and Zonal Hospitals		
10	Operation Table	5	5	10	unit	District, Regional and Zonal Hospitals		
11.1	USG Portable Colour Doppler 3 probes	5	5	10	unit	Regional and Zonal Hospitals		
11.2	High end Colour Doppler Ultrasound Machine with Convex,	1	0	1	unit	Institute of Medicine, Kathmandu		

Slice no.	Description of Goods	1 st Year Quantity	2 nd Year Quantity	Total Quantity	Physical unit	Final (Project Site) Destination (as specified in BDS)	DDU Delivery Date as per Incoterms 2000	
							Required Delivery Dates	Bidder's offered Delivery date [to be provided by the bidder]
	Linear and Endocavity Multi Frequency Probes							
11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes	1	0	1	unit	Institute of Medicine, Kathmandu		
12	Video Arthroscopy System	1	1	2	unit	Central, Regional and Zonal Hospitals		
13	Flexible Naso Pharyngoscope with halogen light	5	5	10	unit	Central, Regional and Zonal Hospitals		
14	X-Ray C-Arm Mobile	6	2	8	unit	Regional and Zonal Hospitals		
15	X-Ray Machine 300mA	20	25	45	unit	Regional, Zonal and District Hospitals		
16	X-Ray Machine 500 mA, Fixed DR with film printer	1	1	2	unit	Regional and Zonal Hospitals		
17	Blood Culture System	1	1	2	unit	Central and Regional Hospitals		
18	Diathermy Electrosurgical 300W	7	7	14	unit	District, Regional and Zonal Hospitals		
19	Video Gastro, Duodeno, Colono with Camera System	1	1	2	unit	Central and Regional Hospitals		
20	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories	1	0	1	unit	Institute of Medicine, Kathmandu		
21	Flat Panel Digital Fluoroscopy	1	0	1	unit	Institute of Medicine, Kathmandu		
22	Motorised High Frequency Portable Digital X-Ray	1	0	1	unit	Institute of Medicine, Kathmandu		

2. List of requirements for manufacturer's authorization, warranty period, related services and completion schedule

Slice No	Brief description	Manufacturer's Authorisation required?	Warranty period (standard: 1 year from acceptance)	Availability of after sales service and minimum utilisation period (standard: 5 years)	Description of Service			Location where services have to be performed	Final completion date of Services
					On-site installation Required?	User training (use and maintenance)	Preventive and corrective maintenance services during warranty period		
ICB 31 Hospital Equipment (including Anaesthesia Machine, CT scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)									
1	Anaesthesia Machine	Yes	2 years	Yes	Yes	Yes	Yes	On site	End of the Warranty period
2	Autoclave Electric	Yes	1 year	Yes	Yes	Yes	Yes	On site	
3	Steriliser Steam Pressure Electric	Yes	1 year	Yes	Yes	Yes	Yes	On site	
4	Intended deletion								
5	Pulse Oxymeter	No	1 year	Yes	Yes	Yes	No	On site	
6	CT Scan 16 Slice	Yes	2 years	Yes	Yes	Yes	Yes	On site	
7	Intended Deletion								
8	Dental Chair	Yes	2 years	Yes	Yes	Yes	Yes	On site	
9	ICU Ventilator for Children & Adult Pneumatic	Yes	2 years	Yes	Yes	Yes	Yes	On site	
10	Operation Table	Yes	1 year	Yes	Yes	Yes	Yes	On site	
11.1	USG Portable Colour Doppler 3 probes	Yes	2 years	Yes	Yes	Yes	Yes	On site	
11.2	High end Colour Doppler Ultrasound	Yes	2 years	Yes	Yes	Yes	Yes	On site	
11.3	Middle range Colour Doppler Ultrasound	Yes	2 years	Yes	Yes	Yes	Yes	On site	

Slice No	Brief description	Manufacturer's Authorisation required?	Warranty period (standard: 1 year from acceptance)	Availability of after sales service and minimum utilisation period (standard: 5 years)	Description of Service			Location where services have to be performed	Final completion date of Services
					On-site installation Required?	User training (use and maintenance)	Preventive and corrective maintenance services during warranty period		
ICB 31 Hospital Equipment (including Anaesthesia Machine, CT scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)									
12	Video Arthroscopy System	Yes	2 years	Yes	Yes	Yes	Yes	On site	
13	Flexible Naso Pharyngoscope with halogen light	Yes	2 years	Yes	Yes	Yes	Yes	On site	
14	X-Ray C-Arm Mobile	Yes	2 years	Yes	Yes	Yes	Yes	On site	
15	X-Ray Machine 300mA	Yes	2 years	Yes	Yes	Yes	Yes	On site	
16	X-Ray Machine 500 mA, Fixed DR with film printer	Yes	2 years	Yes	Yes	Yes	Yes	On site	
17	Blood Culture System	Yes	2 years	Yes	Yes	Yes	Yes	On site	
18	Diathermy Electrosurgical 300W	Yes	2 years	Yes	Yes	Yes	Yes	On site	
19	Video Gastro, Duodeno, Colono with Camera System	Yes	2 years	Yes	Yes	Yes	Yes	On site	
20	Flat Panel Digital Subtraction Angiography System	Yes	2 years	Yes	Yes	Yes	Yes	On site	
21	Flat Panel Digital Fluoroscopy	Yes	2 years	Yes	Yes	Yes	Yes	On site	
22	Motorised High Frequency Portable Digital X-Ray	Yes	2 years	Yes	Yes	Yes	Yes	On site	

3. Technical Specifications

FOR

Hospital and Laboratory Equipment (including Anaesthesia Machine, CT Scan, X-Ray, USG, Video Arthroscopy System, Naso Pharyngoscope etc.)

The specification and equipment order list contains 2 sections A, B. These sections are an integral part of the specification and equipment order list and complement each other. The two sections are namely:

- A. General points and notes
- B. Slice wise specifications under different Slices (altogether 22 slices)
The right hand blank side must be completed by the bidder with the technical specifications of the equipment offered with supplementary documents enclosed.

A. GENERAL POINTS AND NOTES

1. Dimensions

Dimensions have been included in the specifications and are intended for GUIDANCE ONLY to match the type of size required. Where there are particular parameters to observe, minimum and maximum sizes have been quoted.

2. Mains Electrically Powered Items

All mains electrically powered items should be suitable for operation on the electrical system within Nepal 220/230 volts.

110-volt units, which work through transformers, are NOT acceptable.

3. Instruction/Operating Manuals

Each set of equipment must be supplied with detailed operating and maintenance manuals and technical information in the English language.

4. Sensitive Nature

All the equipment and instruments are of a sensitive nature so they will only be procured from recognized, medical equipment/instrument manufacturers who have an established history or the manufacturers of whose products meet international quality standards.

5. Quality Assurance and Product Conformity

Manufacturers of all medical devices (equipment and instruments) must have a quality assurance system certified under the following standards:

- ISO 13485:2003 or later, as well as ISO 14971:2007 - risk management system for medical devices (for manufacturing of medical equipment and instruments)
- ISO 9001:2008 (for manufacturing of all other goods).

As may be further specified in the following Technical Specifications per item, medical equipment and instruments proposed and supplied must conform to specific product certification, namely CE mark (certifying compliance with the Medical Devices Directive (MDD)93/42/EEC, with subsequent amendments) or equivalent.

A Certificate of Conformity to the Test Parameters and date of manufacturing shall be available to the Purchaser for all the instruments and equipment.

6. Product Information

All the information provided in the bid should be substantiated by attached product data sheets/technical catalogues and relevant Standards such as International Standards Organisation (ISO), European Norms (EN), Indian Standard Institute (IS), Nepal Standard (NS), British Standards Institute (BS), American National Standards Institute (ANSI), .

7. Standard Accessories

All equipment should be supplied with their standard accessories as normally provided by the manufacturers in addition to those accessories that are specifically mentioned in the specifications. The cost of these accessories must be included in the bid price.

8. Availability of Spare Parts and Consumables

The bidder shall supply equipment with a start-up supply of consumables allowing for testing and commissioning and approximately six months of normal operation.

9. Technical Trial

Technical trials may be conducted for all the instruments and equipment prior to purchase and the supplier is fully responsible to provide all facilities needed to conduct the Technical trial on the same model of equipment quoted.

10. Installation and commissioning

All equipment which is so specified in the bidding documents must be installed and commissioned by the Supplier at the final destination(s), including, any base plates or connecting devices to the floor/foundation, utility connection to the equipment within the location, calibration and commissioning. The Supplier will also provide and install the latest version of complete programme software required for the installation, commissioning and its functioning for the diagnostic use of the equipment. The Supplier will also provide licensed copies of all such software for future reference and use of the Purchaser. Such software is to be Original Equipment Manufacturer (OEM). The Supplier will also be required to make available the updated version(s) of such OEM program software for use in the same equipment.

The Health Facility at final destination shall be responsible to ensure that a suitable location (room) is made available, including required connections up to the location for electricity, water, air, oxygen, nitrous oxide, drainage, etc. as applicable for the particular equipment.

All other equipment shall be delivered by the supplier in fully assembled operational condition.

The specifications per item also specify whether or not installation and commissioning is required.

12. User training

The Supplier shall conduct user training for equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.

For fixed equipment, the training shall be conducted at the site of the equipment, following installation and commissioning. For other equipment the training will be conducted at a central location (Kathmandu or capital of one or more of the regions) in consultation with the Purchaser.

The specifications per item also specify whether or not user training is required.

13. Maintenance service during warranty period

For items as specified in the following individual Technical Specifications and 2 List of Related Services and Completion Schedule, preventive and corrective maintenance must be provided by the supplier during the period of warranty and included in his bid. The cost of spare parts will be separately payable by the user, except cases covered under warranty.

13. Right to Reject

All the information provided should be accurate and sufficient to convince fully the Purchaser that all the offered goods fully meet the technical specifications and output quality. If such complete information is not provided and which leads to doubts about the technical compliance of the item(s), the Purchaser retains the right to reject the corresponding item.

Technical Specifications Form:

B: SLICE WISE SPECIFICATION:

Specification & Statement of Compliance, 31-(1) Anaesthesia Machine

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31-1	Anaesthesia Machine			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	It shall be an anaesthesia unit with pneumatically or electrically powered and electrically controlled ventilator.			
2	Operational Requirements			
2.2	It shall be suitable to be used for adult and paediatric patients.			
3	System Configurations			
3.1	It shall come with the main unit and two vaporizers, one for isoflurane and the other for halothane.			
4	Technical Specifications			
4.1	Equipment safety standard should follow IEC 60601, document evidence shall be submitted for evaluation			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.2	For this purpose Bidder should compulsorily submit valid (not expired) ISO / CE or Internationally acceptable equivalent Certificate, which will be reviewed by technical experts during tender evaluation. If such certificates are not submitted along with sealed bids, technical experts may disqualify their offer.			
4.3	On sturdy steel with anticorrosive powder coating trolley running on four antistatic wheels with brakes and drawers			
4.4	Revolving support for possible inclusion of CO2 absorber.			
4.5	Gas inlet: 3 inlets, O2, N2O and Air			
4.6	Gas cylinder yokes: O2 & N2O			
4.7	Should come with accessories for connecting gas supply both from central supply as well as from cylinders.			
4.8	Flow meter:			
4.9	It shall come with 6 flow meter columns; 2 flow meter columns for each kind of gas; which 1 column with normal increments and 1 column with small adjustments.			
4.10	The oxygen flow meter shall have adjustment ranges: 1 column approximately from 0 to 1 L/min and the other column approximately from 1 to 10 L/min			
4.11	The Nitrous oxide flow meter shall have adjustment ranges: 1 column approximately from 0 to 1 L/min and the other column approximately from 1 to 10 L/min			
4.12	The air flow meter shall have adjustment ranges: 1 column approximately from 0 to 1 L/min and the other column approximately from 1 to 10 L/min			
4.13	O2, N2O and air pressure gauges			
4.14	Battery backup for not less than 90 minutes of operation			
4.15	Autoclaveable CO2 absorbent canister with minimum 2.5kg soda lime.			
4.16	All circuits shall be detachable, washable and Autoclaveable at most with steam of 134 degree C			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.17	Vaporizer			
4.18	Type of vaporiser : shall be concentration calibrated type, such as variable bypass or heated blender or equivalent			
4.19	It shall accommodate two vaporizers.			
4.20	Come with 2 sets of concentration calibrated type vaporizers and two sets of compatible fillers for one for isoflurane and the other for halothane.			
4.21	Stainless steel supporting arm with two articulations and rail clamp			
4.22	Vaporizer is to be maintenance free with easy re-filling			
4.23	Gas flow control or Oxygen ratio control			
4.24	The N ₂ O and O ₂ flow control shall be interlocked that the proportion of O ₂ to N ₂ O will never fall below a minimum value, i.e. O ₂ concentration shall never be less than 25%, to produce a hypoxic breathing mixture.			
4.25	It shall automatically cut off the supply of N ₂ O and other gases and activate an alarm if O ₂ pressure drops below 28 - 30PSI, It shall sounds at maximum volume every 10 seconds			
4.26	Ventilator			
4.27	Microprocessor based electrically powered and electrically controlled ventilator			
4.28	Operating modes: Manual, spontaneous, VCV			
4.29	Tidal Volume: approximately 50 - 1200 ml			
4.30	Breathing frequency: approximately 5 - 60 breath/min			
4.31	Inspiratory flow: approximately 5 - 70 L/min			
4.32	Pressure limitation : approximately 10 - < 70 cm H ₂ O			
4.33	PEEP (positive end-expiratory pressure): approximately 0 - 20 cm H ₂ O			
4.34	Monitoring			
4.35	Alarms shall be available for all vital parameters and system error or failure of at least the following			
a	Concentration of O ₂			
b	Expiratory volume and flow			
c	High and low airways pressure			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
d	Pressure high, low or leakage			
e	Low gas supply pressure			
f	Power failure, low battery, patient disconnection and others			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.3	Silicone breathing circuit for adult and child, 2 complete sets each.			
5.4	Connecting hose with regulator/ flow meter or probe for connection to PIN index oxygen cylinder and BOC type oxygen wall outlet, at least 5 meter length, 1 set			
5.5	Connecting hose with regulator/ flow meter or probe for connection to N2O cylinder or N2O wall outlet, at least 5 meter length, 1 set			
5.6	Connecting hose with regulator/ flow meter or probe for connection to air cylinder or wall outlet, at least 5 meter length, 1 set			
5.7	Silicone test lung adult and child size, 1 set each			
5.8	silicone rubber anaesthesia face mask adult and paediatric size, 1 pc each			
5.9	O2 sensor, 1 set			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(2) Autoclave Electric

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31-2	Autoclave Electric			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	Pressure cooker type portable steriliser unit for sterilising of surgical instruments and dressing materials by means of steam.			
2	Operational Requirements			
2.1	It shall be mains electrically powered.			
3	System Configurations			
3.1	Pressure cooker type portable steriliser unit, 1 unit			
3.2	Dressing drums made of seamless stainless steel construction, size of 275mm H x 240 mm diameter, suitable to fit into the autoclave, 3 units			
3.3	Dressing drums made of seamless stainless steel construction, size of 225mm H x 225mm diameter, suitable to fit into the autoclave, 3 units			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
3.4	Floor stand, 1 unit			
3.5	Graduated water measuring jug, to enable filling of steriliser with correct quantity of water, 1 unit			
4	Technical Specifications			
4.1	The pressure cooker type portable steriliser unit shall be operated by mains electrically. Suitable for sterilising of surgical instruments and dressing materials by means of steam under pressure of not less than 1.1 to 1.2 Kg/cm ² (15 to 18 PSI).			
4.2	Constructed of heavy-duty spun aluminium (preferably stainless steel), cylindrical shape (Minimum Diameter 300 mm X Depth app 500 mm) and must be seamless construction to prevent bacteria residue and dirt accumulation.			
4.3	Lid have spring loaded safety valves - pressure relief (steam release) valves, dead weight type safety valve, automatic over pressure safety valve and dial type pressure gauge (0 – 60 PSI) and must be sealed the autoclave with joint less neoprene gasket,			
4.4	Unit to include fitted spacing shelf/trivet above heating element to prevent contact of contents with heating element. Electrical heating element to have over-temperature protection/cut out and Maximum electrical power should not to exceed 4KW.			
4.5	The life span of all items required in this TSF, excluding wear-and-tear parts or consumables, shall have a minimum of 5 years from the date of successful handing over.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form..			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.3	Additional 2 spare lid gaskets			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 12 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(3) Steriliser steam pressure electric type 25L

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31 -3	Steriliser steam pressure electric type 25L			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	Electric steam steriliser to sterilise medical devices (dressing material, surgical instruments etc.).			
2	Operational Requirements			
2.1	It shall be an electric steam steriliser			
3	System Configurations			
3.1	Electric steam steriliser, 1 unit			
3.2	1. Drums Sterilising stainless steel with seamless construction suitable to fit into the steriliser:			
3.3	a. Two (2) unit of drums: approximately 160-180 mm height x external diameter 270mm			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.4	b. Two (2) unit of drums: approximately 100-120 mm height x external diameter 165 mm			
3.5	3. One (1) x spare over pressure rubber plug			
3.6	4. One (1) x spare heating element (240 V)			
3.7	5. Graduated water measuring jug, to enable filling of steriliser with correct quantity of water,1 unit			
3.8	Bidder shall indicate brand and model/ parts information and provide technical data document for all the above components offered			
4	Technical Specifications			
4.1	Electric steam steriliser, approximately 15L+/-10% chamber capacity with 25L+/-10% gross capacity, with drums sterilising. Bidder shall indicate here the dimensions of the chamber as well as the overall steriliser in the format of Height x Diameter in mm and chamber volume in litre.			
4.2	Metal vessel with high-pressure seal suitable for carrying out sterilisation using superheated steam. Maximum pressure: 21 PSI / 1.5 Bar. Maximum temperature: 259°F / 126°C.			
4.3	The cover and bottom of the sterilizer shall be made of heavy cast aluminium The container insert shall be made of Aluminium alloy.			
4.4	Seal: rubber gasket sealing or metal-to-metal sealing.			
4.5	Safety clamping locks: retaining bayonet clamp and (6) Bakelite wing nuts to prevent removal of the cover while the sterilizer is under pressure. Removable cover equipped with: Bakelite top handle.			
4.6	Dial gauge: geared steam pressure gauge, graduated in kg / cm ³ , PSI and degrees Fahrenheit, with colour-coded gauge showing sterilizing zone (green) and caution zone (red).			
4.7	Control valve and flexible metal exhaust tube.			
4.8	Excess pressure relief valve and over-pressure rubber plug.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
4.9	Chamber equipped with:			
4.10	Aluminium container: plain basket with handles. approx. 285 mm diameter x 215 mm height			
4.11	Aluminium inner container rack.			
4.12	Heating element.			
4.13	Stainless steel support stand to protect the heating element.			
4.14	Scored water level mark inside chamber.			
4.15	Power supply characteristics: 220-240 V, 50 / 60 Hz, approximately 5 Amp 1000 Watts heating element.			
4.16	On-Off toggle switch. Thermostatic control system: Thermostat heat control knob for thermostat (setting 0 to 8) and pilot light (red).			
4.17	Power supply cord: 3-wire grounded cord with plug (type B). at least 3 meters long			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 12 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			
12.2	It must be supplied with diagrams for assembly in English and list of accessories / parts.			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(4)

Intended Deletion

Technical Specifications Form:

Specification & Statement of Compliance, 31-(5) Pulse Oxymeter

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31-5	Pulse Oxymeter			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A portable pulse Oxymeter to measure heart rate and SpO2			
2	Operational Requirements			
2.1	It should operate from internal rechargeable battery with recharging function from the AC main.			
3	System Configurations			
3.1	Pulse Oxymeter, 1 unit			
4	Technical Specifications			
4.1	Shall be a portable model.			
4.2	Shall have an LCD or LED display			
4.3	Shall have a bright numeric display for easy to read parameter and menu keys			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
4.4	It must be suitable to operate in the presence of potentially flammable anaesthetic gases, and it shall not cause fire or explosion during operations.			
4.5	It must be able to operate within specification at 10 to 45 degree C.			
4.6	Shall provide O2 saturation % level.			
4.7	Shall provide pulse rate/beats per minute.			
4.8	Standard range shall be provided for SPO2: 0% to 100%			
4.9	Accuracy: +/- 3% from 70-100% SpO2 range			
4.10	Pulse rate range : approximately 30 to 250 bpm with an accuracy better than +/- 5bpm			
4.11	Audio-visual alarms for high/low SpO2 & pulse rate, sensor off, sensor failure, low battery, with alarms override.			
4.12	The unit must be capable of storing and printing patient data.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms..			
5.3	SpO2 reusable finger sensors for adult and child, 1 each			
5.4	SpO2 reusable sensor for infant, 1pc.			
5.5	SpO2 reusable ear sensor, adult size, 1 pc			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 12 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall NOT be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(6) CT Scan 16 Slice

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31-6	CT Scan 16 Slice			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	Whole body multi detector rows 16 slices CT scanner			
2	Operational Requirements			
2.1	A 16 slices spiral CT scanner for high resolution whole body scanning including vascular applications. The model should be capable of acquiring 16 or more slices per 360 rotation. Bidder shall indicate the year of manufacturing.			
2.2	It shall be DICOM Ready			
2.3	It shall integrate and interface with PACS			
3	System Configurations			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.1	Spiral CT mainframe with gantry, x-ray tube and generator , topogram, image reconstruction, Image evaluation tools, post processing tools, as specified, 1 unit			
3.2	Main console with monitor, 1 unit			
3.3	Workstation, 1 unit			
3.4	DVD/CD achieving , 2 units, 1 each on each console			
3.5	Patient table, 1 unit			
3.6	Dry film printer, 2 units			
3.7	Laser colour printer , 1 unit			
3.8	CT pressure Injector , 1 unit with 100 pieces of syringes			
3.9	UPS for the entire system , 1 unit			
3.10	Good quality Lead aprons , 6 units			
3.11	Lead glass window 100 x 125 cm, 0.5mm Pb equivalent , 1 unit			
3.12	Bidder shall indicate brand and model information here and provide technical data document for major components specified above			
4	Technical Specifications			
4.1	Gantry:			
4.2	Gantry aperture: at least 70 cm			
4.3	It shall have control panel on either side of the gantry.			
4.4				
4.5	It should have light for positioning.			
4.6	Gantry tilt: +/- 30 degrees or more via remote control and from the console.			
4.7	FOV: 500 mm or more.			
4.8	Detector:			
4.9	Data acquisition: acquire 16 slices or more per 360 rotations.			
4.10	Row of detector: 20 or more			
4.11	Coverage in Z-axis : ≥ 20 mm or more			
4.12	Number of Detector per array: ≥ 600			
4.13	Scan Time: minimum full scan time at 360° shall not be more than 0.5 sec			
4.14	X-ray Generator			
4.15	The Generator should have adequate output to facilitate spirals of at least 100 sec duration.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.16	Power output: not less than 50kW			
4.17	mA range : 30 to 400 mA in 1mA increment.			
4.18	X-Ray Tube:			
4.19	Tube focal spots: dual focal spot.			
4.20	Tube Voltage: not less than 90 - 130 KV			
4.21	Tube current : not less than 30-400mA			
4.22	Real Time mA modulation for dose regulation.			
4.23	Anode heat storage capacity: not less than 5.0 MHU			
4.24	Heat dissipation rate: not less than 700kHU/min			
4.25	Warranty of tube: 2 years irrespective of number of scans.			
4.26	Area of Coverage along Z axis: not less than 16 mm per rotation.			
4.27	Resolution			
4.28	High Contrast (X, Y axis) : 15 LP/cm or better for complete FOV. Bidder shall specify the high contrast value together with information of phantom used, scan time, mA, scan field, dose, slice and MTF.			
4.29	Low contrast for CATPHAN: Bidder shall specify the low contrast resolution value together with information of phantom used, scan time, mA, filter for image reconstruction, scan field, dose and slice.			
4.30	Please specify the temporal and visual high resolution also.			
4.31	Patient Table			
4.32	Maximum load: not less than 200Kg			
4.33	Table horizontal movable range: not less than 1500 mm			
4.34	Table vertical movable range: from 450 to 900 mm,\			
4.35	Longitudinal Scan Range: not less than 1500 mm			
4.36	Positioning accuracy at any table feed rate: not more than +/- 0.25 mm			
4.37	Table top: shall be made of carbon fibre			
4.38	Minimum table top height should not be more than 550mm from the floor level			
4.39	Main Console:			
4.40	Main Computer for control of all examination functions, image reconstruction, 3D processing,			
4.41	filming and storage.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.42	Reconstruction time: Not less than 20 images/sec.			
4.43	Clock Frequency : not less than 2 GHz , memory : not less than 12 GB			
4.44	Display: $\geq 19''$ colour LCD display monitor with matrix at least 1024 x 1280			
4.45	Hard Disk : Not less than 1 TB for raw data and images storage.			
4.46	Image Storage : $\geq 240,000$ of raw images of 512 x 512			
4.47	Reconstruction Matrix : 512 x 512 or more			
4.48	Display Matrix : 1024 x 1024			
4.49	With parallel image processing function			
4.50	Shall be able to simultaneously transfer image to workstation while performing scan.			
4.51	With DICOM 3.0 interface for transfer, print, receive, archive, retrieve and work list.			
4.52	Come with printer and CD/DVD recording device.			
4.53	Helical application:			
4.54	Scan length: at least 100 cm in a single continuous spiral/helical scan with a free pitch selection. Bidder to indicate types of helical.			
4.55	With facility to bolus tracking & automatically initiate scanning.			
4.56	Offline dedicated satellite console/workstation:			
4.57	Workstation with CPU, LCD monitor not less than 18". Satellite console should have all the features as of the main console and they shall be swappable. With image evaluation software and following post processing functions:			
	i) Software for brain perfusion and abdominal tumour perfusion studies.			
	ii) Complete virtual endoscopy package.			
	iii) Software for stenosis analysis.			
	iv) Software for Dental Planning.			
	v) Osteo/BMD software.			
4.58	Monitors for both consoles:			
4.59	Shall be flat screen LCD type of at least 19" with fast image refresh rate and flicker free.			
4.60	Bidder shall specify the number of total monitors included in the offer.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.61	Consoles Common feature:			
	1. The two workstations should be interconnected by ISDN Lines (to be included in the bid price) for two way transfer of images and reports.			
	2. Spatial alignment and visualization of two different data sets of one patient generated on different dates or with different acquisition time..			
	3. Post processing software: Perfusion CT, VRT, MIP, SSD, Image Fusion, Vessel segmentation, Virtual Endoscopy software to be provided on both workstations.			
	4. Patient online registration, pre-registration facility and transfer of information from HIS/RIS via DICOM should be possible.			
4.62	Image evaluation tools:			
	1. Parallel evaluation of multiple ROI in circle, irregular and polygonal forms.			
	2. Statistical evaluation for area/ volume, S.D, Mean/Max and Histograms.			
	3. Profile cuts: horizontal, vertical and oblique views.			
	4. Distance & angle measurement, freely selectable positioning of co-ordinate system, grid and image annotation.			
	5. Dynamic evaluation of contrast enhancement in organs and tissues, calculation of time density curves, peak enhancement images and time-to-peak images.			
4.63	Post processing tools			
	1. 2-D, including image zoom and pan, image manipulations, including averaging, reversal of grey-scale values, and mirroring; image filter functions, including advanced smoothing algorithm and advanced bone correction.			
	2. Real-time multi-planar reconstruction (MPR) of secondary views, with viewing perspectives in all planes including curved & orthogonal MPR.			
	3. CT angiography, MIP, Min IP, SSD, VRT and other advanced 3D applications and colour coding for different tissues.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
	4. Spatial alignment and visualization of two different data sets of one patient generated on different dates or with different acquisition times.			
	5. Perfusion CT for study of brain. Liver, kidney, pancreas etc.			
	6. Volume measurements.			
4.64	Patient communication system:			
	An integrated intercom and Automated Patient Instruction System (API) should be provided			
4.65	Image documentation			
4.66	A. Dry film printer, 2 units, with the following specifications:			
	1. Dry Laser/thermal technology			
	2. Resolution: 16 bits/ 600 dpi			
	3 Supports 5 multiple film sizes: one of which must be 17"x14"			
	4. Must have 2 or more online film sizes.			
	5. Throughput of 180 films or more per hour			
	6. DICOM compliance, conformance statement shall be provided for evaluation.			
	7. It should print on a multi-format mode and should be DICOM compatible.			
	8. One integrates with the main console and the other integrates with the satellite console.			
4.67	B. Laser colour printer, 1 unit:			
	1. Colour dry printer for printing film quality images on plain paper.			
	2. DICOM Compliant			
	3. Laser/thermal dye sublimation technology for B/W or colour printing			
	4. Resolution: at least 1200x1200 dpi.			
	5. More than 20 ppm.			
4.68	Connectivity and Archive:			
	1. DICOM connectivity should be optimized for networking with other imaging systems.			
	2. DICOM converters for linking the camera with other imaging systems of the department should be provided, if required separately. It should have sufficient memory to store images from the CT as well as other system connected to it.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
	3. Filming parallel to other activities, including independent scanning, documentation and post-processing and configurable image text.			
	4. Archiving: DVD/CD writer should be provided for archiving. Specify minimum number of uncompressed and compressed images that it can store per disc. Option of viewing these discs on any PC without DICOM viewer should be available.			
4.69	CT pressure injector, 1 unit:			
4.70	Single head, with flow rate from 0.1-10 ml/sec, volume 1 ml to syringe capacity, programmable pressure limit of 325 psi with 200 ml syringe, syringes 100 & 200 ml disposable sterile syringes, with minimum of 30 protocols. Syringe heater at 35 °C +/- 5 °C. Should be provided with head mounting device and integral IV pole.			
4.71	Unit will be provided with display monitor to provide pressure monitor graph, flow profile, stop watch feature, scan display, multiphase capability and protocol locking capabilities.			
4.72	Resettable overcurrent circuit breaker fitted for protection			
4.73	Servo controlled stabilizer/CVT as applicable			
4.74	UPS of at least 30 minutes operation with suitable rating shall be supplied for the complete system including computer system , anaesthesia delivery system, monitor and defibrillator			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.2	All standard Maintenance tools and cleaning/ lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length, and 380 or 415VAC 3-phase.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
8.2	One week on-site training by manufacturers' application specialist and service engineer for training of medical and technical staffs to familiarize in proper operation and basic maintenance and troubleshooting.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
10.2	The service shall cover replacement of parts of the complete system including x-ray tube, electronic items and all other parts. The service shall also include a 98% uptime warranty during the warranty period; the warranty period will be extended by 2 times of the downtime if it exceeds more than 2% in a year.			
10.3	Manufacturer shall commit the availability of spare parts and consumables and accessories for at least 10 years			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s)			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			
12.2	User manual in English incorporating the newer applications should be provided along with shipment of machine.			
12.3	Service manual in English should be provided along with shipment of machine.			
12.4	Certificate of calibration and inspection from factory should be provided along with shipment of machine.			
12.5	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(7)
Intended Deletion

Technical Specifications Form:

Specification & Statement of Compliance, 31-(8) Dental Chair

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31-8	Dental Chair			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A Dental chair for Dental treatment			
2	Operational Requirements			
2.1	It shall operate on AC power supply.			
3	System Configurations			
3.1	Patient chair, 1 unit			
3.2	Working stool, 2 units			
3.3	High speed hand piece, 2 units			
3.4	Low speed motor with 1 straight hand piece & 1 contra-angle hand piece, 1 set			
3.5	A built-in light cure unit			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
3.6	A built-in ultrasonic scaler with one each of pointed and flat scaler tips			
3.7	One air compressor at least 1 horse power			
3.8	One suction unit at least 1 horse power			
3.9	One unit of automatic amalgamator			
3.10	One set of amalgam carrier with tips and one amalgam well			
3.11	One set of 4 pieces of amalgam condensers			
3.12	One set of 5 pieces of amalgam carvers			
3.13	One set of 5 pieces of burnishers			
3.14	Bidder shall indicate brand and model information here and provide technical data document for major components specified above			
4	Technical Specifications			
4.1	Patient type: adult & paediatric & deformity			
4.2	CE marked and ISO9000, ISO13485			
4.3	Main unit standard configuration as follow:			
4.4	Patient chair:			
4.5	With electrical chair movement and deluxe double articulated headrest.			
4.6	With one left armrest as standard.			
4.7	3 pre-set chair positions: start, treatment and rinsing position.			
4.8	Electrical patient chair loading capacity: not less than 1323N (135kg).			
4.9	Backrest movement range 105°-175°			
4.10	The lowest position of the patient chair from the ground shall not be less than 380mm.			
4.11	The highest position of the patient chair from the ground shall not be less than 780mm			
4.12	Chair movement is controllable by the 4 way foot control at the chair base without touch panel			
4.13	No cables on the floor, hygienic and clean.			
4.14	One main switch to control air, water and power.			
4.15	The chair position is locked while an instrument is working.			
4.16	With chair-backrest safety system, backrest and seat movement can be stopped once it meets obstacle.			
4.17	Dentist element:			
4.18	Dentist element with whip arm system			
4.19	Height of dentist element is adjustable			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
4.20	1 X-ray film viewer (12V, 2000cd/m2)			
4.21	1 silicon mat for the dentist element which can be sterilized.			
4.22	1 three way syringe			
4.23	3 ISO 4-hole/Midwest hand piece hoses			
4.24	1 air pressure meter			
4.25	Assistant element:			
4.26	1 three way syringe			
4.27	1 strong suction hose			
4.28	1 saliva ejector			
4.29	With suction filter system			
4.30	Water unit:			
4.31	The cuspidor can be swiveled and removable for easy cleaning			
4.32	Cup filler and bowl rinsing systems shall prevent over filling of cup and prolong rinsing of bowl. Preferably programmable			
4.33	With automatic water heating system (24V)			
4.34	With water venturi and air water separator system			
4.35	Fresh water bottle, at least 1.5L			
4.36	Operating light:			
4.37	Colour temperature: 3800-4500K			
4.38	12V, 50 Watt bulb			
4.39	Dental light intensity: min 25000lux			
4.40	Working stool, 2 units			
4.41	Mobile on 5 castors			
4.42	Height of seat and backrest is adjustable			
4.43	Backrest angle is adjustable and lockable			
4.44	Come with NSK or equivalent high speed hand piece, 2 units			
4.45	Come with NSK or equivalent low speed motor with 1 straight hand piece & 1 contra-angle hand piece, 1 set			
4.46	Come with a built-in light cure unit			
4.47	Come with a built-in ultrasonic scaler with one each of pointed and flat scaler tips			
4.48	Come with one unit of automatic amalgamator			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviati on if any	Page no. of catalogue/ datasheet/ manual
4.49	Come with one set of amalgam carrier with tips and one amalgam well . Bidder shall indicate brand and model/ part number information here and provide catalogue of each piece of item offered here.			
4.50	Come with one set of 4 pieces of amalgam condensers, one each of serrated small size, serrated big size, smooth small size & smooth big size. Bidder shall indicate brand and model/ part number information here and provide catalogue of each piece of item offered here.			
4.51	Come with one set of 5 pieces of amalgam carvers, double-ended, made of stainless steel, one size each from small, medium up to large size. Bidder shall indicate brand and model/ part number information here and provide catalogue of each piece of item offered here.			
4.52	Come with one set of 5 pieces of burnishers, double-ended, made of stainless steel, one size each of different type. Bidder shall indicate brand and model/ part number information here and provide catalogue of each piece of item offered here.			
4.53	Come with one air compressor at least 1 horse power or capacity sufficient to supply to the Dental chair specified above, whichever higher. Bidder shall indicate capacity of the unit offered here.			
4.54	Come with one suction unit at least 1 horse power or capacity sufficient to supply to the Dental chair specified above, whichever higher. Bidder shall indicate capacity of the unit offered here.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
6.2	Environment: Temperature:10-45 degree C Relative Humidity: not more than 98%			
6.3	Maximum power consumption: 300VA			
6.4	Air supply pressure 0.55~0.80Mpa			
6.5	Water supply pressure 0.20~0.40Mpa			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviati on if any	Page no. of catalogue/ datasheet/ manual
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(9) ICU Ventilator for Children & Adult Pneumatic

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31-9	ICU Ventilator for Children & Adult Pneumatic			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A pneumatic dedicated adult and paediatric ventilator for use in intensive care unit with CPAP mode.			
2	Operational Requirements			
2.1	It should operate from the main supply with central oxygen supply and oxygen cylinder.			
3	System Configurations			
3.1	Ventilator unit, 1 unit			
3.2	Trolley, 1unit			
3.3	Accessories, 1set			
4	Technical Specifications			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
4.1	It shall be an electronically controlled pneumatic ventilator or equivalent.			
4.2	The pneumatics should be designed such that the patient is always permitted for free spontaneous breathing.			
4.3	The air passed through the compressor or turbine shall be cleaned by a HEPA filter before delivering to patient.			
4.4	Ventilator shall come with non-invasive ventilation			
4.5	Gas and power supply			
4.6	Inlet gas pressure: air 3-5bar, O2 3-6bar			
4.7	Microprocessor controlled gas delivery system with integrated air pump or a matching medical air compressor which will automatically be on if the medical air from the central supply is cut off.			
4.8	With integrated electronic air-oxygen mixture control.			
4.9	Power supply: 220 and 240VAC , 50 - 60 Hz o to meet the power supply requirements of the purchaser's country			
4.10	Battery back-up time: Approximately 120 min			
4.11	Ventilation mode: A/C , SIMV, CPAP, PSV, BIPAP, Apnoea ventilation, SPONT			
4.12	Ventilation frequency: approximately 2 - 80 bpm			
4.13	Inspiratory flow range: 6 to 150 l/min			
4.14	Triggering mechanism: flow triggering, preferably with pressure triggering.			
4.15	Inspiration time: approximately 0.2 - 10 sec			
4.16	Tidal volume: approximately 0.05 - 2 litre			
4.17	Inspiratory pressure: approximately 0 - 100 mBar (1mBar = 1.02 cmH2O)			
4.18	Oxygen concentration(FiO2): 21- 100 volume %			
4.19	In case of oxygen failure, the ventilator should be able to provide ventilation with room air.			
4.20	PEEP/ intermittent PEEP: approximately 0 - 35mBar			
4.21	Triggering sensitivity: flow triggering: not more than 1 - 15L/min, in the case if pressure triggering is included: -20 - -0.1cmH2O			
4.22	Automatically calculate inspiratory and expiratory triggering points			
4.23	With leak compensation to NPPV and pressure support (PSV) in SMIV and CPAP modes			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.24	Pressure support Ventilation (PSV) : approximately 0 - 35mBar			
4.25	Controlled ventilation:			
4.26	The ventilators shall have volume-controlled and pressure-controlled modes that can be used to provide both full and partial ventilatory support.			
4.27	Volume controlled: Assist/Control, IMV (Intermittent mandatory ventilation) and SIMV (Synchronized Intermittent Mandatory Ventilation)			
4.28	Pressure controlled: Assist/Control, IMV (Intermittent mandatory ventilation) and SIMV (Synchronized Intermittent Mandatory Ventilation)			
4.29	With Spontaneous pressure support mode			
4.30	With Apnoea-backup ventilation mode			
4.31	Supported ventilation:			
4.32	Volume Support (Volume supported ventilation), synchronized support ventilation with volume guarantee			
4.33	CPAP (Continuous Positive Airway Pressure)			
4.34	Combined ventilation:			
4.35	The ventilator shall also have combination modes, combine volume- and pressure-controlled ventilation to ensure that a minimum volume is delivered with an initial flow that matches patient demand.			
4.36	SIMV (Volume Control) (Synchronized Intermittent Pressure Support Mandatory Ventilation based on volume controlled ventilation with pressure support)			
4.37	Ventilator off / Battery charging			
4.38	Trigger bias flow:			
4.39	Paediatric flow triggering			
4.40	Adult flow triggering			
4.41	Pre-set Tidal Volume: approximately 20- 2 000mL			
4.42	Pre-set Minute Volume: approximately 0.2 - 20 L/min			
4.43	Oxygen breaths:			
4.44	100% for 20 breaths or max 3min			
4.45	Patient range:			
4.46	Paediatric / Adult			
4.47	Monitoring and Alarms:			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
4.48	Standard monitoring of the following parameters: Pressures, flow, volumes, time, frequency, real time waveforms, trends, oxygen percentage and etc.			
4.49	Should contain all standard operator-adjustable as well as special audible as well as visual alarms for all the vital ventilation parameters like volumes, pressures, frequencies, oxygen percentage, Apnoea and also its technical status.			
4.50	Apnoea alarm time approximately 15 - 60 sec			
4.51	With internal flow sensor			
4.52	With bacterial filter, able to filter at least 99.97% of all 0.3 microns particles, at both inspiration and expiration terminal.			
4.53	The expiration bacterial filter is preferably housed in a heating device to reduce condensation in the filter.			
4.54	Expiration sensitivity regulation			
4.55	Auxiliary equipment port. Bidder shall indicate details here.			
4.56	It shall be able to work with O2 concentrator in delivering oxygen to patient.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.3	HEPA filter, 5 sets for 5 replacements			
5.4	Silicone Autoclaveable breathing circuit for adult and child, 2 complete sets each.			
5.5	Connecting hose with regulator/ flow meter or probe for connection to Pin index oxygen cylinder and BOC type oxygen wall outlet, 3 meter length, 1 set			
5.6	Calibration manometer, Test			
5.7	Hexagonal wrench 5mm			
5.8	O2 cell with O-ring.			
5.9	Silicone test lung adult and child size, 1 set each			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
5.10	Nipple connector 15-10 mm			
5.11	Trolley, 1 unit			
5.12	Breathing gas Humidifier, x 2 sets, with following parameters. (a) Adjustable temperature regulation. (b) Safety valves. (c) Display for operating status and Humidifier Accessories including: (1) Clamp set (2) Temperature sensor (3) Humidifier bracket (4) Patient hoses (5) Water traps (6) Y pieces (6) Catheter connector and etc.			
5.13	Patient humidifier, 1 pc			
5.14	Humidifier bracket, 1 pc			
5.15	Hinged arm, 1 pc			
5.16	Temperature sensor, 1 unit			
5.17	Flow sensors, 5 pcs			
5.18	Inspiration bacterial filter, able to filter 99.97% of all 0.3 microns particles, 5 pcs			
5.19	Expiration bacterial filter, able to filter 99.97% of all 0.3 microns particles, 5 pcs			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
7.2	Shall meet equipment safety standard of IEC 60601			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(10) Operating table

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31-10	Operating table			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	The table shall be suitable for a wide range of General surgery applications.			
2	Operational Requirements			
2.1	It shall operate on a non-electric hydraulic system			
3	System Configurations			
3.1	Operating table, 1 unit			
3.2	Lithotomy stirrups, it shall be insulated to protect patient for electric burn by electric cautery unit, 1 pair			
3.3	Arm posturing board x2pcs			
3.4	Anaesthesia screen x1pc			
3.5	Body strap x2pcs			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.6	Wristlet x1pc			
3.7	Head ring, x1pc			
3.8	Knee crutches x2pcs			
3.9	kidney pillar/ support, x 1pc			
3.10	Douche tray fitting, 1 set			
3.11	At least three spare mounting brackets/ clamps			
4	Technical Specifications			
4.1	Height adjustment by a non-electric hydraulic system			
4.2	The table shall be mobile on castors with efficient braking system or castor lifting system in order to provide sufficient stability during operation.			
4.3	The movements of head section, leg section, raising and translation of backrest, raising and translation of pelvic support shall be operated mechanically.			
4.4	All table adjustment mechanisms shall have locking mechanisms or non-slip drives i.e. Worm drives, ratchets, groove locator, etc. Bidder shall indicate the locking mechanism of the table offered.			
4.5	Table shall be finished in non-ferrous metal, and/or ferrous metal with heavy duty paint coating providing sealed and easy clean surface.			
4.6	Table shall have stainless steel or heavy duty chromed side rails for accessory fittings - to permit rapid fitting and detachment of accessories			
4.7	Table section: 4 sections with adjustable and removable head / leg flaps.			
4.8	Table top: Full length radiotranslucent top with x-ray cassette tunnel with cassette holder.			
4.9	Mattress: Radiotranslucent, antistatic, 4 section, washable and easy to clean with a thickness of at least 8cm.			
4.10	Dimension at least in range 600 x 2000 mm			
4.11	Height adjustment: 610 to 900mm.			
4.12	Trendelenburg and reverse Trendelenburg: 30 degree / 30 degree			
4.13	Lateral tilt (Left/right): approx.: 25 degree/ 25 degree			
4.14				
4.15	Back section: approx. 65 degree up/40 degree down.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.16	Leg section: 20 degree up / 95 degree down and/ or to be completely removable for obstetrics/gynaecology procedures			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.3	All accessories which are to be rail mounted shall be supplied complete with mounting brackets/ clamps.			
5.4	Basic accessories, 1 set consists of the following items:			
5.5	Lithotomy stirrups, it shall be insulated to protect patient for electric burn by electric cautery unit, 1 pair			
5.6	Arm posturing board x2pcs			
5.7	Anaesthesia screen x1pc			
5.8	Body strap x2pcs			
5.9	Wristlet x1pc			
5.10	Head ring, x1pc			
5.11	Knee crutches x2pcs			
5.12	kidney pillar/ support, x 1pc			
5.13	Douche tray fitting, 1 set			
5.14	At least three spare mounting brackets/ clamps			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 12 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31 – (11) Doppler ultrasound machines

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

This ICB 31 – (11) consists of the following sub-slices:	
11.1	USG Portable Colour Doppler 3 probes
11.2	High end Colour Doppler Ultrasound Machine with Convex, Linear and Endocavity Multi Frequency Probes
11.3	Middle range Colour Doppler Ultrasound Machine with convex, Linear and Endocavity Multi-frequency Probes

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (11.1)	USG Portable Colour Doppler 3 probes			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A general purpose notebook-type colour Doppler ultrasound imaging system			
2	Operational Requirements			

2.1	It shall operate on AC power supply. The machine is intended to be carried to the field or the patient ward with the inbuilt battery system to examine patients who could not come to USG room			
3	System Configurations			
3.1	Portable colour Doppler ultrasound imaging system, 1unit			
3.2	1 unit of broad bandwidth of 2 - 5MHz, convex array probe for OB/GYN and abdominal application			
3.3	1 unit of broad bandwidth of 5 - 10 MHz, linear array probe for small part and superficial scanning application			
3.4	1 unit of broad bandwidth of 5 - 8 MHz, endo-vaginal probe for OB/GYN endo-vaginal scanning application			
3.5	1 unit of Black & White thermal printer			
4	Technical Specifications			
4.1	The machine is intended to be carried to the field or the patient ward with the inbuilt battery system to examine patients who could not come to USG room. it shall comply with the following requirements for this purpose:			
4.2	The unit shall be lightweight and easy to carry, the total weight including 1 probe and battery shall not be more than 5kg.			
4.3	The unit must be sturdy, "drop safe", resistant to breakage & damage on minor fall or hit against the wall or hard surface.			
4.4	Shall have long lasting built-in rechargeable battery which shall support up to 2 hours of routine ultrasound examinations			
4.5	This machine shall come with main unit, 3 units of probes, 2 built-in rechargeable Lithium ion battery packs and 1unit of black and white thermal printer			
4.6	It shall come with a custom made trolley on castors to hold the main unit on top with provision of a probe holder and drawers for storage of 3 probes, printer and ultrasound gel.			
4.7	Main applications: OB/GYN, abdominal, small parts, cardiac and vascular.			
4.8	Main unit:			
4.9	Display not less than 26cm (10") colour LCD display			
4.10	Full alphanumeric keyboard			
4.11	Probe connector: at least 1 probe connector			

4.12	Shall come with 1 unit of broad bandwidth of 2 - 5MHz, not less than 30cm scan depth, convex array probe for OB/GYN and abdominal application			
4.13	Shall come with 1 unit of broad bandwidth of 5 - 10 MHz, not less than 9cm scan depth, linear array probe for small part and superficial scanning application			
4.14	Shall come with 1 unit of broad bandwidth of 5 - 8 MHz, not less than 10cm scan depth, endo-vaginal probe for OB/GYN endo-vaginal scanning application			
4.15	The system shall accept most of the common probe types of: convex array, linear array, phased array			
4.16	Scan modes: M-mode, B-mode and 2-D			
4.17	System shall be incorporated with English operation menu and reporting.			
4.18	With digital broad bandwidth multi-frequency imaging capability			
4.19	With Doppler angle and angle correction			
4.20	Frame rate: not less than 50fps			
4.21	Display depth: minimum 30cm			
4.22	Matrix size: 512 x 512 x 8bit			
4.23	Grayscale levels: 256			
4.24	The machine shall include the following functions:			
4.25	Programmable pre-set examination protocols store common setting related to image display/adjustment, annotation,			
4.26	Obstetric analysis: BPD (biparietal diameter), CRL (crown-rump length), AC (abdominal circumference), HC (heart circumference), FL (foetal length), GS (gestation sac), GA (estimation of gestation age), foetal weight, heart rate and etc.			
4.27	OB/GYN reporting			
4.28	Small part analysis			
4.29	Cardiac analysis with intima medial thickness measurement			
4.30	Velocity Colour to detect colour flow with PW & CW Doppler			
4.31	Body markers			
4.32	Time & slope for M-Mode			
4.33	Contrast with 8 - 10 steps adjustment			
4.34	Image pan, zoom, freeze, text annotation			
4.35	Focus: 4-point adjustment			
4.36	Automatic gain control			

4.37	Near and far Gain adjustment.			
4.38	With pre- and post- processing			
4.39	With tissue harmonic imaging			
4.40	With tissue optimization function			
4.41	With function to reduce patch noise and other image artefacts without compromising quality of images.			
4.42	With multi-beam imaging			
4.43	With clear visual of biopsy needle position			
4.44	With dual and duplex imaging			
4.45	Dynamic range, selectable up to approximately 165dB			
4.46	Image storage: Shall be able to store still and video images, shall be able to store about 1000 images on main unit.			
4.47	Cine memory of 250 or more frames for cine loop playback			
4.48	Come with 1 unit of Black & White thermal printer.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts (including 2 bottles of ultrasound gel) required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form..			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with			

	this TSF.			
7.2	Shall comply with IEC60601-1 Class I Type BF			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (11.2)	High-end colour Doppler ultrasound machine with convex, linear and endocavity multi-frequency probes			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	The system should be state of the art with fully digital technology equipment to incorporate the facility of 2D, M-Mode, CDI, PW, CW-Doppler, Power Doppler, directional power angio, (Contrast Imaging), Real time 3-D(4-D), Imaging for abdomen, obstetrics & Gynae, Cerebrovascular, peripheral vascular, adult transcranial & superficial parts imaging like breast, scrotum, thyroid, musculoskeletal exam and etc.			
2	Operational Requirements			
2.1	It shall operate on AC power supply.			
3	System Configurations			
3.1	Digital colour Doppler ultrasound machine, 1 unit			
3.2	Convex probe 2-5 mHz , 1 unit			
3.3	Broadband linear array probe with frequency range between 5 to 17 mHz, 1 unit			
3.4	Broadband linear array probe with frequency range between 3 to 9 mHz, 1 unit			
3.5	Endocavity probe 3-10 mHz for TV/TR application along with biopsy guide, 1 unit			
3.6	Broadband convex volume 4D transducer 2-6mHz for 3D/4D applications, 1 unit			
3.7	Volume 4-D endo-cavitary probe, 1 unit			
3.8	Ultrasound gel warmer, 1 unit			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.9	Bidder shall indicate brand and model information here and provide technical data document for major components specified above			
4	Technical Specifications			
4.1	It should be fully digital technology with digital beam former and should have more than 50000 digitally processed channels. Technical data sheet should be enclosed in technical bid to support the number of digitally processed channels on the system.			
4.2	Monitor should be at least 19" flat LCD colour display			
4.3	System should have at least 3 universal active probe ports with electronic switching facility from key board without probe adapter.			
4.4	Operating modes B-mode, M-Mode, B/M Mode, Doppler Mode, Colour flow, power Doppler, DCA/DPA, Contrast Imaging, B/Colour flow, PW, CW Doppler, Real time 3D (4-D imaging), Elastography Imaging for Breast, Liver and Gynaecology Application.			
4.5	System should support broadband probes spanning a frequency of 2-17 MHz.			
4.6	B mode & B colour simultaneous should be available side by side real time display of B-Mode & Colour flow. Digital zoom facility for region of interest in real time and frozen images.			
4.7	System should have 256 grey shades.			
4.8	Image storage facility on built-in hard disc or MOD/CD/DVD-RW facility In case of built-in hard disk it shall have a capacity of 160GB. System should have extensive image management capability including thumb nail review, Cineloop editing etc.			
4.9	Cine loop as well as cine scroll facility in B mode with storage of 800 or more images should be available. Cineloop frames should also be available for abdominal contrast applications			
4.10	Auto trace & automatic Doppler calculations should be available in Live & frozen images.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.11	System should have high precision beam steered spatial image compounding for acquisition of more tissue image information and reduction of angle generated artefacts. Should have up to 9 beam-steered lines of sight. This should be demonstrated in convex, linear and endocavity probes.			
4.12	Advanced measurements & calculation package for abdominal, obst./gynae, urology & vascular should be available.			
4.13	System should be capable of scanning depth of 38cm			
4.14	System should have an acquisition frame rate in 2D of 500 frames/second. Acquisition frame rate should be clearly mentioned in the technical quote.			
4.15	System should have a very high dynamic range of at least 170 dB to pick up subtle echoes.			
4.16	System should have THI & should be able to work in combined mode of harmonic imaging and real time compound imaging to get excellent image quality. The system shall offer Tissue Harmonic Imaging in Power Doppler imaging mode for improved sensitivity and specificity in differentiating blood/agent from tissue.			
4.17	The system should have Contrast Harmonic Imaging and should have optimization settings to detect the Contrast Agents. Please specify other advanced Technologies to perform better Contrast Harmonic Imaging.			
4.18	The system should have Harmonic Imaging for Tissues for hard to image patients. The system shall support Tissue Harmonic Imaging capability on phased, linear, 3D and curved array transducers. Tissue Harmonic Imaging should be available in colour flow imaging, M-Mode, and 3D rendering modes.			
4.19	The system should have adaptive Image Processing for noise and artefact reduction that improves tissue conspicuity and artefact reduction. Such as X-rays, SRI (Speckle Reduction Imaging) technology or equivalent.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.20	Selectable field of view from 20-90 degrees for sector probe. PW / Colour Tissue Doppler Imaging should be standard on the system. PW/CW Doppler facility in all imaging Phased Array Sector Transducers.			
4.21	Independently selectable Gain Control in both Axial & Lateral Plane with control keys			
4.22	Automatic real time & frozen tracing of instantaneous peak velocity & instantaneous mean velocity (or frequency) should be available. Triplex Imaging should be standard on the system.			
4.23	PW velocity range up to 12.5KHz & more than 15 KHz with HPRF option at 0 degree cursor angle preferably. Should provide capability to change 2D Functions like Overall gain, Dynamic Range and Colour Functions like Gain, Baseline, Colour Map, Invert on a reviewed Image.			
4.24	Angle correction in real time & frozen mode should be available. Should have single button control for automatic optimization and adjustment of TGC and Receiver Gain to achieve optimal uniformity of image quality and faster scans. The automatic optimization should be offered in Colour Imaging too. Control panel should be capable of being raised, lowered and rotated.			
4.25	System should also have incorporated the following features:			
4.26	Real Time 3-D in grey scale, fusion mode(colour/power & B/W). STIC capability for Foetal Echocardiography.			
4.27	Real time 3D colour image package with volume 4D convex probe for real time 3D imaging with frequency range of 3-5 MHz			
4.28	Multi-slice/iSlice/TUI imaging should be there.			
4.29	vi) Foetal Heart Navigator or Similar Technology to Automates the initial ductal arch view			
4.30	Obtains the foetal heart views: 4-Chamber, LVOT, and RVOT			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.31	The system should offer a very high frame rate up to 500 frames per second. The system shall be able to perform mechanical 4D acquisitions at 30 Volumes per second and electronic live volume imaging up to 90 volumes per second. Please specify.			
4.32	Machine should operate on single phase 220 V, 50 Hz. Abdominal Contrast Imaging should be standard on the system. Abdominal probe should be capable of contrast imaging, please confirm this in the technical bid. Should have Low Mechanical Index (MI) and Flash Modes and start/stop timer.			
4.33	On line UPS off suitable KVA with in-built battery for the whole system with at least 30 minutes back up time			
4.34	Black and white thermal printer of latest model and of standard make.			
4.35	Biopsy guide compatible with Linear probe and convex probe. System should be quoted along with Breast, Gynaecology and Liver Elastography Imaging as standard.			
4.36	The system should support Convex, Linear, Sector, Volume, Matrix Array and static transducers. It should support volume imaging by freehand, mechanical, and electronic methods. The system should support the real time acquisition and display of two image planes. The system shall allow for a reference plane and second plane that can be laterally tilted, elevation tilted or rotated with respect to the reference plane.			
4.37	The system should be DICOM ready System should have capability of HIS and RIS connectivity and should also be connected to the dry chemistry printer available in the department (CR/DR system/ CT/MRI/Mamography). Should provide advanced DICOM connectivity to an enterprise data management system or PACS with advanced DICOM features: DICOM Store, Modality Work list, Performed Procedure Step and Structured Reporting. Please specify the advance DICOM features available on the quoted system.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.38	System should have a full Alfa numeric key board with illuminated key and status display System should have Fully Articulating Control Panel including Height, swivel & slide adjustments.			
4.39	The system shall support simultaneous display of volume and multi planar reconstructed (MPR) views. The system should have the in-built software tool for imaging MPR, Thick Slice, and slice plane views. The system shall support full screen display of all 3D views including individual X, Y, Z MPR views and simultaneous display of thumbnail views on the same system display monitor. Full Trim capability must be supported: Oblique and linear trimming in the MPRs; Freehand trimming of the volume			
4.40	It shall come with the following probes:			
4.41	Convex probe 2-5 mHz , 1 unit			
4.42	Broadband linear array probe with frequency range between 5 to 17 mHz, 1 unit			
4.43	Broadband linear array probe with frequency range between 3 to 9 mHz, 1 unit			
4.44	Endocavity probe 3-10 mHz for TV/TR application along with biopsy guide, 1 unit			
4.45	Broadband convex volume 4D transducer 2-6mHz for 3D/4D applications, 1 unit			
4.46	Volume 4-D endo-cavitary probe, 1 unit			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts (including 2 bottles of ultrasound gel) required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
	specified in this Technical Specifications Form.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC: 2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			
31 - (11.3)	Middle range Colour Doppler Ultrasound Machine with convex, linear and endocavity multi-frequency probes			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A fully digital colour Doppler ultrasound DICOM compatible imaging system for Radiology, OB Gyn, vascular, small parts applications			
2	Operational Requirements			
2.1	It shall operate on AC power supply.			
3	System Configurations			
3.1	Digital colour Doppler ultrasound machine, 1 unit			
3.2	2-6 mHz broadband curved array transducer, 1 unit			
3.3	3-12 mHz broadband linear array transducer, 1 unit			
3.4	4-8 mHz broadband endocavity (TV/TR) transducer, 1 unit			
3.5	2-6 mHz volume 4D convex transducer for real-time 3D Imaging / 4D Imaging, 1 unit			
3.6	3-9 mHz volume 4D TVS transducer for real-time 3D Imaging / 4D imaging for transvaginal application, 1 unit			
3.7	Ultrasound gel warmer, 1 unit			
3.8	Bidder shall indicate brand and model information here and provide technical data document for major components specified above			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4	Technical Specifications			
4.1	System shall provide all-digital broadband beam forming with maximum display depth shall be at least 30 cm.			
4.2	The system should be capable of supporting XRES Extreme Resolution adaptive image processing technique that performs analysis at the pixel level eliminating speckle noise artefact and dynamically enhancing tissue textures, margins and borders.			
4.3	The system shall be capable of supporting SonoCT nine lines compound imaging using computed beam steering technology.			
4.4	The system shall be capable of acquiring/ displaying quantitative 3D or 4D volume data with STIC capability for Foetal Echocardiography.			
4.5	The system should capable to perform 4D acquisitions at least 30 volumes/sec.			
4.6	The system should have minimum 8000 digitally processed channels per image frame.			
4.7	The system should support broadband Phased array, Convex and Linear array transducers.			
4.8	System should provide 232 dB fulltime input dynamic range.			
4.9	Digitally controlled, 17-inch Flat Panel monitor with tilt & swivel.			
4.10	Slide pot TGC & LGC gain controls with pre-defined curves.			
4.11	System should be a new generation ergonomically designed to curb minimum injury to sonographer/ physician with keyboard platform rotatable and moveable (up/down).			
4.12	System should support Tissue Harmonic Imaging in Phased Array, Linear Array and convex array transducers.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.13	The system shall support full screen display of all 3D views including individual A, B and C MPR views and simultaneous display of thumbnail views on the same system display monitor.			
4.14	The system should have in-built image management system with at least 80 GB HDD, CD- Writing facility and direct paper printout of images.			
4.15	The system should have 2D, CW, PW, Colour Doppler, THI, Colour Power Doppler, M-Mode, Pulse Inversion Harmonic Technology.			
4.16	Anatomical M-Mode, High Q Automatic Doppler Analysis, Intelligent 2D Scan Facility, Intelligent Doppler Scan Facility, Tomographic Ultrasound Imaging Capability of Foetal brain(TUI).			
4.17	System Shall offer Contrast harmonic imaging and should have optimization settings to detect contrast agents. Please specify other advanced technologies to perform better contrast harmonic imaging			
4.18	Following transducers to be quoted as standard:			
4.19	2-6 mHz broadband curved array transducer			
4.20	3-12 mHz broadband linear array transducer			
4.21	4-8 mHz broadband endocavity (TV/TR) transducer			
4.22	2-6 mHz volume 4D convex transducer for real-time 3D Imaging / 4D Imaging			
4.23	3-9 mHz volume 4D TVS transducer for real-time 3D Imaging / 4D imaging for transvaginal application			
4.24	To ensure maximum clinical utility, the manufacturer must demonstrate the capability of the system to successfully perform in the following types of applications:			
4.25	Abdominal			
4.26	Small parts and superficial			
4.27	Paediatric			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.28	Musculoskeletal			
4.29	Obstetrical			
4.30	Gynaecological and fertility			
4.31	Prostate			
4.32	Vascular (Peripheral, Cerebrovascular, and Intraoperative)			
4.33	The system architecture shall be designed to simultaneously process the entire bandwidth of broadband transducer received frequencies from 1 to 15 MHz			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts (including 2 bottles of ultrasound gel) required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
	unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(12) Video Arthroscopy System

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Qty	Unit of Measure ment	Bidder's Offer/ Statement of Complian ce	Deviati on if any	Page no. of catalogue/ datasheet/ manual
31-12	Video Arthroscopy System					
	Manufacturer:					
	Brand:					
	Type/Model:					
	Country of Origin:					
1	Description of Functions					
1.1	An endoscopy system for arthroscopy procedure on knee joint.					
2	Operational Requirements					
2.1	It shall operate on AC power supply.					

S No.	Purchaser' Specifications	Qty	Unit of Measurement	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
2.2	* Despite specifications of rigid scopes are written in separate TSF, The <u>rigid video endoscopy system</u>, including camera system, all telescopes, ancillary equipment for a Hospital must be of <u>the same BRAND and same MANUFACTURER</u>. All rigid endoscopes offered for a hospital must also be able to <u>share one common camera system</u> in order to promote sharing and hence increase its utilisation. All bidders must comply with this condition.					
3	System Configurations					
3.1	Digital single chip camera system, 1 unit					
3.2	Colour monitor, 1 unit					
3.3	Xenon 175 watt cold light source and light cable, 1 unit					
3.4	Power shaver system, 1 unit					
3.5	Arthroscope Autoclaveable, 1 set					
3.6	Hand instruments for large joint, 1 set					
3.7	1 unit of video CD recorder					
3.8	1 unit of video printer					
3.9	Arthroscopy trolley, 1 unit					
3.10	Bidder shall indicate brand and model information here and provide technical data document for major components specified above and for all instruments and endoscopes specified below.					
4	Technical Specifications					
4.1	* Digital single chip camera system,	1	unit			
4.2	The system shall come with Camera control unit and camera head.					
4.3	The camera shall be of single CCD chip					
4.4	Horizontal image resolution shall be more than 450 lines					
4.5	Automatic white balance with memory function					
4.6	The system shall be compatible with all major rigid endoscope eyepieces.					

S No.	Purchaser' Specifications	Qty	Unit of Measure ment	Bidder's Offer/ Statement of Compliance	Deviati on if any	Page no. of catalogue/ datasheet/ manual
4.7	The camera head shall have 2 programmable buttons for control of camera functions, video recorder, video printer and other peripheral equipment.					
4.8	The camera head shall be able to connect with operating microscope by means of a special adaptor.					
4.9	The camera head shall be Autoclaveable or at least shall be disinfected by soaking in common disinfectants and/or sterilized by gas.					
4.10	The system shall have the following output: Composite signal Y/C signal RGB signal NTSC PAL					
4.11	The system shall include: 1x power supply cable 2x connecting cables for video recorder and video printer 1x BNC-connecting cable 1x S-VHS connecting cable 1x RGB-connecting cable set					
4.12	The system shall at least comply with IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601, CE label according to MDD, protection class 1/BF. (Bidder shall indicate the standards which their equipment complied with.)					
4.13	Colour monitor	1	unit			
4.14	The 19" colour LCD monitor shall have at least 500 lines horizontal resolution					
4.15	Shall have PAL and NTSC colour system.					
4.16	It shall have the following video input: Composite signal, Y/C signal and RGB signal.					
4.17	The system shall at least comply with IEC 601-1. (Bidder shall indicate the standards which their equipment complied with.)					
4.18	Xenon 175 watt cold light source and light cable	1	unit			

S No.	Purchaser' Specifications	Qty	Unit of Measurement	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.19	The unit shall have a light port with xenon lamp of approximately 175 watt					
4.20	The colour temperature shall be approximately 5000K.					
4.21	There shall be at least 1 light outlet.					
4.22	The intensity of light shall be continuously adjustable.					
4.23	The life span of the lamp shall be at least 500 hours for xenon.					
4.24	Spare lamp of xenon, one each, shall be supplied together with this tender.	1	pc			
4.25	Fibre optic light cable ~250cm length size ~4.8mm	1	pc			
4.26	The system shall at least comply with IEC 601-1, CE label according to MDD, protection class 1/BF. (Bidder shall indicate the standards which their equipment complied with.)					
4.27	Shall come with 1 unit of video CD recorder	1	unit			
4.28	Shall come with 1 unit of video printer	1	unit			
4.29	Arthroscopy Irrigation/Distension unit	1	unit			
4.30	Electronic centrifugal pump, peristaltic pump or equivalent					
4.31	The unit shall have at least pressure control to regulate the fluid pressure being produced and to directly regulate pressure within the joint.					
4.32	Fluid pressure range : approximately 10 - 180 mmHg					
4.33	Flow rate setting: approximately 0 - 1 litre/min. adjustable					
4.34	The system shall constantly monitor intra-operational pressure to prevent over pressure. There shall have optical and acoustical warning signal and software controlled electronic venting in case of overpressure					
4.35	The system shall at least comply with IEC 601-1. (Bidder shall indicate the standards which their equipment complied with.)					
4.36	Power shaver system	1	unit			

S No.	Purchaser' Specifications	Qty	Unit of Measure ment	Bidder's Offer/ Statement of Compliance	Deviati on if any	Page no. of catalogue/ datasheet/ manual
4.37	The system shall consist of power shaver control unit, footswitch and hand pieces					
4.38	The motor of the system shall be electrical and battery type					
4.39	The control unit shall be microprocessor controlled to produce optimum torque, cutting power and precise control of blade speeds from ~0 - ~30000 rpm					
4.40	Configuration of the saw shall be oscillating, sagittal and reciprocating.					
4.41	The control unit shall have memory to store pre-programmed speeds for each blades (Bidder shall indicate the maximum number of pre-programmed speeds for the system offered)					
4.42	The LED shall be capable of displaying maximum and minimum blade speed of all type of blades used. It shall have safety of maximum and minimum speed locking feature.					
4.43	The control unit shall have self-diagnostic function and shall indicate any faults detected via its LED					
4.44	Shaver hand piece: Shall come with 1 set of shaver hand piece, it shall be Autoclaveable, maximum 12,000rpm, brushless motor, with automatic torque feedback to maintain consistent speed and torque. It shall accommodate various types of blades and burrs. Bidder shall indicate the specifications of the hand piece offered here.	1	set			
4.45	The system shall come with 1 set of standard saw blade . Bidder shall indicate quantity and details of blades included here	1	set			
4.46	Shall come with a footswitch , it shall be capable of oscillating, forward and reverse control. The footswitch shall be splash proof and unaffected by common OR fluid spills, easy to clean, have suitable mechanical protection against accidental pedal depression and switches shall not be susceptible to sticking in the ON position.	1	unit			

S No.	Purchaser' Specifications	Qty	Unit of Measurement	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.47	The system shall comply with IEC 601-1 or any other equivalent standards (please indicate standards complied with).					
4.48	Arthroscope Autoclaveable	1	set			
4.49	Arthroscope 30° 4mm diameter, ~110° field of view, ~ 160mm working length, Autoclaveable	1	pc			
4.50	Autoclaveable cannula set for the above arthroscope comes with a 5.8mm double valve rotatable cannula and obturator.	1	set			
4.51	Punch cone	1	set			
4.52	Autoclaveable cannula set for the above cone punch comes with a 5.8mm quick locking double valve rotatable cannula and obturator.	1	set			
4.53	Sterilization tray for the above instruments.	1	set			
4.54	Hand instruments for large joint	1	set			
4.55	Punch basket narrow shaft upswept with loop handle.	1	pc			
4.56	Punch basket duckling up biter with loop handle.	1	pc			
4.57	Punch basket duckling curved left with loop handle.	1	pc			
4.58	Punch basket duckling curved right with loop handle.	1	pc			
4.59	Punch scissors straight with loop handle.	1	pc			
4.60	Grasper forceps loose body pit-bull with loop handle.	1	pc			
4.61	Grasper forceps alligator max with loop handle.	1	pc			
4.62	Punch basket 90° rotary 2.2mm left with straight handle.	1	pc			
4.63	Punch basket 90° rotary 2.2mm right with straight handle.	1	pc			
4.64	Probe straight with straight handle.	1	pc			
4.65	Sterilization tray for linear instruments.	1	pc			
4.66	Sterilization tray for rotary instruments.	1	pc			
4.67	Any additional instruments deemed necessary to compliment the above items, bidder shall list these items					

S No.	Purchaser' Specifications	Qty	Unit of Measure ment	Bidder's Offer/ Statement of Compliance	Deviati on if any	Page no. of catalogue/ datasheet/ manual
	below:					
4.68	add1:					
4.69	add2:					
4.70	add3:					
4.71	This unit shall share with the common rigid scope camera system within the package. Bidder must ensure and declare here the compatibility of this instrument set with the camera system offered.					
5	Accessories, Spare Parts and Consumables					
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.					
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.					
5.3	Video printer paper, box of 100 pieces	2	box			
5.4	Cleaning brush ~35cm length, outer diameter 2.5mm	2	pc			
5.5	Cleaning brush ~35cm length, outer diameter 11mm	2	pc			
5.6	Oil 50ml	2	bottle			
6	Operating Environment					
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.					
7	Standards & Safety Requirements					

S No.	Purchaser' Specifications	Qty	Unit of Measurement	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.					
8	User Training:					
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.					
9	Warranty					
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods					
10	Maintenance Service During Warranty Period					
10.1	Preventive and corrective maintenance services during warranty period shall be included.					
11	Installation and Commissioning					
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),					
12	Documentation					
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language					

Technical Specifications Form:

Specification & Statement of Compliance, 31-(13) Flexible naso-pharyngoscope with Halogen light source

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31-13	Flexible naso-pharyngoscope with Halogen light source			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A flexible naso-pharyngoscope come with a Halogen light source			
2	Operational Requirements			
2.1	It shall operate on AC power supply.			
3	System Configurations			
3.1	Flexible naso-pharyngoscope, 1unit			
3.2	Halogen light source, 1 unit			
3.3	Instrument tray,1 unit			
4	Technical Specifications			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
4.1	Flexible naso-pharyngoscope: Bidder shall indicate brand and model information here and provide technical data document for the scope offered			
4.2	It should be a fiberscope, consisting of thousands of light fibres in a bundle.			
4.3	Working length: 300 mm			
4.4	Distal end (OD): 3.4 mm ; Insertion tube (OD): 3.6 mm			
4.5	Bending section: Angulation Range			
4.6	Up 130° / Down 130°			
4.7	Length of A-Rubber section: 25 mm			
4.8	Minimum bending radius: 20 mm			
4.9	Field of view: 85°			
4.10	Depth of focus: 5 - 50 mm			
4.11	The visibility of the scope shall be clear under the moist and humid environment. Bidder shall indicate here the mechanism installed in the scope to enhance the visibility under this condition.			
4.12	Weight of the flexible naso-pharyngoscope: not more than 250 grams.			
4.13	Come with instrument tray preferably plastic			
4.14	Halogen Light Source: Bidder shall indicate brand and model information here and provide technical data document for the light source offered			
4.15	Power of light source: 150 W			
4.16	* The lamp shall be of Halogen or metal halide cold lamp type of at least 150 watts with manual brightness control			
4.17	Colour temperature: 3250 K			
4.18	Dimension should (W × H × D) in mm: approximately 220×74×290, approximately 5.0 kg			
4.19	It should have a Protecting class of BF			
4.20	Halogen Light Source should operate on a Power supply 220-240 V AC			
4.21	Come with an Optical Fibre Cable to be used with the naso-pharyngoscope			
5	Accessories, Spare Parts and Consumables			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.3	One spare lamp should be supplied along with the System separately			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(14) Mobile C-arm x-ray

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31-14	Mobile C-arm x-ray			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A mobile C-arm x-ray for continuous fluoroscopy, image storage and retrieval			
2	Operational Requirements			
2.1	It shall operate on single phase AC power supply.			
3	System Configurations			
3.1	Mobile C-arm x-ray, 1 unit			
3.2	CD/DVD/RW drive, 1 unit			
3.3	B/W thermal video printer, 1 unit			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.4	Bidder shall indicate brand and model information here and provide technical data document for major components specified above			
4	Technical Specifications			
4.1	X-Ray Generator			
4.2	Microprocessor based, high frequency inverter generator			
4.3	Generator Output: not less than 2kW at 100kV			
4.4	Fluoroscopic/ Radiographic KV range			
4.5	Lower limit shall not exceed 40 KV			
4.6	Higher limit shall not be less than 110 KV			
4.7	Fluoroscopic mA range			
4.8	Lower limit shall be ~0.1 mA			
4.9	Upper limit shall be ~9 mA			
4.10	X-Ray Tube			
4.11	Rotating anode type			
4.12	Single focal spot, shall not be more than 0.6 mm			
4.13	Nominal voltage: 110 kV			
4.14	Anode heat storage capacity not less than 300 KHU			
4.15	Inherent filtration should be at least 3 mm Al equiv			
4.16	Collimator			
4.17	Operator controlled automatic collimation			
4.18	C-Arm			
4.19	Focus - I.I. Distance shall be at least 100 cm			
4.20	Depth shall be ~ 75cm			
4.21	Horizontal travel at least 200 mm			
4.22	Vertical travel at least 450 mm			
4.23	Orbital movement shall be ~125°			
4.24	Swivel range shall be ~12°			
4.25	Rotation about horizontal axis shall be more than +/-180°			
4.26	Image Intensifier			
4.27	At least 23 cm input screen with direct coupling with camera			
4.28	Shall be at least 52 lp/ cm			
4.29	Noise reduction, scattered light trap for high contrast dynamics			
4.30	CCD camera technology with ABC and AGC control			
4.31	TV Monitor			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.32	2 units LCD monitor side by side for live and reference image			
4.33	Shall be at least 43 cm with automatic brightness control			
4.34	Trolley for 2 display screens and with the alphanumeric keyboard included			
4.35	High resolution and anti-glare			
4.36	Imaging Modes			
4.37	Fluoroscopy mode shall have the following facilities: Continuous fluoroscopy with last image hold Last image hold with at least two frames image memory			
4.38	Continuous fluoroscopy with image acquisition rate: about 20 frame/second.			
4.39	Hard disk with image storage capacity of at least 30000 images			
4.40	RAM Memory of 256 images			
4.41	Mosaic display of 16 images			
4.42	Zoom (x 2)			
4.43	Measures: at least distances, angles			
4.44	Come with one unit of CD/DVD/RW drive			
4.45	Come with one unit of B/W thermal video printer printing on 110mm width thermal paper, resolutions more than 300 dpi, 256 grey level. The video printer can be placed on the monitor trolley			
4.46	Sterilisable textile cover and clips, for the X-ray tube and the I.I			
4.47	Shall be operated on normal power supply at all diagnostic and treatment area within hospital.			
4.48	The system offered shall be a general fluoroscopy/radiology system, it should be a non-digital; non-DICOM compatible type.			
4.49	Indicate here other features and software functions included in this offer			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.3	Thermal paper 110mm width for B/W thermal video printer, 2 rolls			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(15) X-ray machine 300mA

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31-15	X-ray machine 300mA			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A general X-ray machine 300mA with fixed height table			
2	Operational Requirements			
2.1	It shall operate on single phase AC power supply.			
3	System Configurations			
3.1	X-ray Generator, 1unit			
3.2	Control Console, 1unit			
3.3	Radiography patient table, 1unit			
3.4	Floor mounted bucky stand, 1 unit			
3.5	Floor mounted tube stand & X-Ray Tube, 1unit			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.6	Bidder shall indicate brand and model information here and provide technical data document for all major components specified above.			
4	Technical Specifications			
4.1	X-ray Generator			
4.2	Microprocessor based, high frequency inverter generator, the generator shall have at least 40kHz.			
4.3	Generator output: not less than 30 kW			
4.4	Radiographic voltage range: 40 - 125KV with 1kV adjustment.			
4.5	Radiographic mA : 10 - 300mA in 10 steps			
4.6	mA range: 0.01 - 500 mA			
4.7	Radiographic timing: min 0.001sec (1msec)			
4.8	Anatomical Programmable Radiographic mode shall be available.			
4.9	Automatic Exposure Control shall be available			
4.10	Overload protection device should be provided.			
4.11	Power supply: 3 phase, 380-415V 50/60Hz			
4.12	X-Ray Tube			
4.13	X-ray tube rotating : +/-120°.			
4.14	Large focus not more than 1.2 mm			
4.15	Small focus not more than 0.6 mm			
4.16	Maximum tube voltage 125 KV. Maximum tube output shall match with the generator output of not less than 30 kW			
4.17	Filtration: min 2.5mm Al equivalent			
4.18	Cooling method passive or forced air and/or oil cooling			
4.19	Anode rotating speed : not less than 3000rpm			
4.20	Anode heat capacity shall not be less than 140 kHU.			
4.21	Radiography patient table			
4.22	Radiography table shall be fixed height, 4-way floating top type with foot switch control.			
4.23	Come with grid and cassette tray, with grid ratio: not less than 12:1. Grid line number: 40 line/cm. Focus distance: 115cm.			
4.24	Cassette size: accept all sizes from cassette 13x18 cm to 35x43 cm type			
4.25	Table top to film distance: 7cm			
4.26	Table top transverse movement : ±14cm			
4.27	Table longitudinal movement : ± 29cm			
4.28	Table top dimension: 2000 mm x 800 mm			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.29	Table movement arrested by electromagnetic brakes			
4.30	Floor mounted bucky stand			
4.31	Vertical travel: from 460-1700mm			
4.32	Moving Grid with Grid ratio not less than 12:1. Grid line number: 40 lines/cm.			
4.33	Movement arrested by electromagnetic brakes			
4.34	Floor mounted tube stand			
4.35	Longitudinal travel: 1750mm			
4.36	Vertical travel: from 630 -1850mm			
4.37	Movement arrested by electromagnetic brakes			
4.38	Rotation of tube arm around vertical axis: 180 ⁰ ; lockable at 0 ⁰ to +/- 90 ⁰			
4.39	Collimator			
4.40	Manually adjustable			
4.41	Manually selectable filters			
4.42	Light localizer			
4.43	Built-in light switch should be provided			
4.44	Turning angle should be min +/- 45 degree			
4.45	Halogen lamp			
4.46	Control Console			
4.47	Digital Display			
4.48	Minimum 3 Point Exposure Technique			
4.49	Status display, error display,			
4.50	With single phase power supply			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with service & installation manual, operation and instruction manual, wiring and schematic diagrams and parts listing			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(16) X-Ray Machine 500 mA, Fixed DR with film printer

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31-16	X-Ray Machine 500 mA, Fixed DR with film printer			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A single detector direct digital radiography unit for general radiology examinations with a film printer			
2	Operational Requirements			
2.1	It shall be suitable to be used for adult and paediatric patients in general Radiography examination			
3	System Configurations			
3.1	X-ray Generator, 1 unit			
3.2	X-Ray tube & tube support system, 1 unit			
3.3	Fixed multipurpose wall stand, 1 unit			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.4	Detector, 1 unit			
3.5	Imaging Workstation, 1 unit			
3.6	Diagnostic Workstation, 1 unit			
3.7	Dry X-ray film printer, 1 unit			
3.8	Intercom, 1 system			
3.9	Worktable and chair, 1 set each for the imaging workstation and diagnostic workstation,			
4	Technical Specifications			
4.1	X-ray Generator, 1 unit Bidder shall indicate brand and model information here and provide technical data document for X-ray generator offered			
4.2	With synchronization of the exposure parameters between generator and imaging workstation to document the post-exposure data.			
4.3	Microprocessor based, high frequency inverter generator, the generator shall have at least 50kHz.			
4.4	* Generator Output: not less than 50 kW (500mA at 100kV)			
4.5	Radiographic voltage: 40 kV to 150kV, in 1kV step.			
4.6	Radiographic current: 10 to 500mA			
4.7	Exposure time: 0.001sec (1msec) - 7sec			
4.8	Anatomical Programmable Radiographic mode shall be available.			
4.9	Manual & automatic exposure control and automatic brightness control shall be available.			
4.10	Shall come with overload protection device.			
4.11	X-Ray tube & tube support system, 1 unit Bidder shall indicate brand and model information here and provide technical data document for X-ray tube offered			
4.12	It shall be ceiling-mounted, multi-directional adjustment with synchronization control, auto-positioning and auto-focusing of the X-ray tube and the detector tray			
4.13	Travel range: Longitudinal: approximately 3000mm Transverse: approximately 1500mm			
4.14	Vertical adjustment: approximately 1500mm			
4.15	X-ray tube rotations with positions lock at -90 to +90° : Around vertical axis: -150 to +180° Around horizontal axis: -120 to +120°			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.16	Large focus not more than 1.2 mm			
4.17	Small focus not more than 0.6 mm			
4.18	Maximum tube voltage 150 KV. Maximum tube output shall match with the generator output of not less than 50 kW			
4.19	Cooling method passive or forced air and/or oil cooling			
4.20	The anode shall be a rotating anode, with a speed not less than 3000rpm			
4.21	Anode heat capacity shall not be less than 300 kHU.			
4.22	It shall come with tube overload and overheat protection.			
4.23	Automatic collimator with automatic and manual exposure field setting			
4.24	Fixed multipurpose wall stand, 1 unit			
4.25	The stand shall be fixed on the floor or on the floor and wall with no horizontal movement needed.			
4.26	The stand shall have the detector integrated with motorised vertical movement range approximately from 300 -1700cm			
4.27	The detector panel shall be tiltable from -20 to 90 degree with locking positions at any degree.			
4.28	Flat panel receiver can be adjusted within -20~90 degrees, and locked in the standing position per 15 degrees			
4.29	SID: any distance between 110-180cm. Bidder to indicate the SID of the unit offered here.			
4.30	With side supports or grips on both sides.			
4.31	It shall synchronize the movement of X-ray tube and flat detector. With centre alignment X-ray beam to the centre of the detector.			
4.32	The detector panel will be used for Radiographic exposure of patient on the Radiography table.			
4.33	Detector, 1 unit			
4.34	TFT flat panel single-piece non-moving detector for direct digital radiography.			
4.35	Material: Caesium Iodide scintillator and/or amorphous silicon.			
4.36	Grid ratio: 8:1, 10:1 or 12:1, Grid lines: not less than 35 line/cm. Bidder to indicate the ratio and line/cm of the unit offered here.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.37	Detector area: 43 x 43 cm. Bidder to indicate the effective/ active area of the unit offered here.			
4.38	Pixel size: <145 x 145um			
4.39	Matrix size: 3000 x 3000 pixel			
4.40	Resolution: 3.5 LP/mm			
4.41	Image acquisition time: <7 seconds			
4.42	Natural cooling			
4.43	With dosage optimization			
4.44	Radiography patient table, 1 unit Bidder shall indicate brand and model information here and provide technical data document for table offered			
4.45	Patient table shall be height adjustment approximately from 600 - 900mm, and mobile on castors with brakes on each side			
4.46	Radiography table top dimension: approximately 2200L x 650 W mm with effective X-ray transparent area of approximately 1750 x 650mm			
4.47	It shall be a radio-translucent floating table top with load capacity of approximately 200kg			
4.48	Table top transverse movement : ± 6 cm			
4.49	Table longitudinal movement : ± 40 cm			
4.50	Lying SID: 600-1100mm			
4.51	Imaging Workstation, 1 unit Bidder shall indicate brand and model information here and provide technical data document for workstation offered			
4.52	The workstation shall be made by the same X-ray machine manufacturer, generic workstation is not acceptable.			
4.53	* Dedicated imaging station with dedicated operation system and software. Bidder shall indicate the specification of the workstation offered here.			
4.54	High resolution diagnostic grade black & white flicker-free anti-glare monitor, not less than 19 inches with 1024x1280 matrix & video refresh rate of >70Hz			
4.55	With AEC, selection of anatomical and age programs, selection of manual or automatic exposure.			
4.56	Image display on monitor: Preview: not more than 7 sec Complete image: not more than 15 sec			
4.57	Depth of image processing: not less than 16 bits			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.58	With dynamic range extension software, automatic image range detection and editing			
4.59	With image documentation and archiving software			
4.60	With DICOM Work list, DICOM Print, DICOM Storage			
4.61	With quality assurance program (QAP)			
4.62	* Bidder shall describe in detail the imaging software and hardware here.			
4.63	Come with free software upgrade within the lifespan of the system. Bidder must declare his compliance with this condition here.			
4.64	Diagnostic Workstation, 1 unit Bidder shall indicate brand and model information here and provide technical data document for workstation offered			
4.65	The workstation shall be made by the same X-ray machine manufacturer, generic workstation is not acceptable.			
4.66	Bidder shall indicate the specification of the workstation offered here.			
4.67	High resolution diagnostic grade black & white flicker-free anti-glare monitor, not less than 19 inches with not less than 1024x1280 matrix & video refresh rate of >70Hz			
4.68	* With dedicated operating system and all software needed for x-ray images diagnosis, documentation, reporting, archiving. Bidder shall specify in details all software included here.			
4.69	Shall support multiple print formats, including 1:1, 2:1, 4:1, 6:1, 9:1,12:1,16:1, 20:1, 24:1			
4.70	* These diagnostic workstations shall be connected via networking with the imaging workstation or the main DR unit to facilitate transfer of images between the main unit and the diagnostic workstations			
4.71	Come with free software upgrade within the lifespan of the system. Bidder must declare his compliance with this condition here.			
4.72	Intercom, 1 system			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.73	One intercom system for communication between examination room and control room			
4.74	Dry X-ray film printer, 1 unit Bidder shall indicate brand and model information here and provide technical data document for printer offered			
4.75	It is a direct thermal or laser imager that produces 14"x17", 14 x 14", 11"x14", 10 x 12" and 8 x 10" dense, high-resolution images with 256 shades of grey, in daylight without liquid chemicals.			
4.76	Throughput: 100 sheets of 14" x 17" films /hour			
4.77	Film size: shall have 2 film trays at a time with choice of film sizes 35 x 43cm (14 x 17") , 14 x 14", 28 x 35cm (11 x 14"), 10 x 12" and 8 x 10" for selection.			
4.78	Resolution: ≥ 320 ppi (pixels per inch) geometrical resolution			
4.79	Contrast: 12 bit contrast resolution			
4.80	Film magazine: about 100 film sheets.			
4.81	It shall connect with the digital x-ray machine via DICOM standard. All accessories, software and labour required for this connection shall be included in the offer.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with service & installation manual, operation and instruction manual, wiring and schematic diagrams and parts listing			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(17) Blood Culture System

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31-17	Blood Culture System			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	* This automated microbiology system is for general <u>detection</u> of microorganisms, including mycobacterium, growth in blood and other body fluids.			
2	Operational Requirements			
2.1	It shall operate on AC power supply in the laboratory department.			
3	System Configurations			
3.1	Blood Culture System consist of the following major components:			
3.2	Control module , 1 unit * Bidder shall indicate brand and model information here and provide technical data document for control module offered here)			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.3	* Incubator to accommodate at least 200 vials, 1 unit * Bidder shall indicate brand and model information here and provide technical data document for incubator offered here			
3.4	Built-in or stand-alone computer , 1 unit, for data storage and reporting. The computer shall have a current common specifications with 21" LCD colour display. * Bidder shall specify in details specifications, indicate brand and model information here and provide technical data document for the computer offered here.			
3.5	Laser printer black & white A4, 1 unit * Bidder shall indicate brand and model information here and provide technical data document for printer offered here			
4	Technical Specifications			
4.1	Standards test method of fluorescence. (Bidder shall indicate test method offered)			
4.2	Sample volume of approximately 1 ~ 10 ml			
4.3	* Continuous monitoring of microorganism growth			
4.4	System shall have the <u>general non-invasive continuous detection</u> capabilities to identify microorganism growth and antibiotic susceptibility of 100 test capacity			
4.5	* Shall have antibiotic inhibitory medium or technique to increase the rate of detection.			
4.6	With built in bar code reader			
4.7	With audio-visual alarms for indication of positive results and system errors.			
4.8	It shall be an upgradeable system			
4.9	With interfacing capabilities to external LIS or hospital network or personal computer.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(18) Diathermy machine (electrosurgical) 300W

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31-18	Diathermy machine (electrosurgical) 300W			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A 300W diathermy machine (electrosurgical unit)			
2	Operational Requirements			
2.1	It shall operate on AC power supply in the operating theatre			
3	System Configurations			
3.1	300W diathermy machine (electrosurgical unit), 1 unit			
4	Technical Specifications			
4.1	Nominal HF output : 300 Watts at ~400 Ohm			
4.2	At least 2 modes of operation: mono-polar cutting and mono-polar / bipolar coagulation.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.3	Mono-polar cutting modes shall have different level of effects from <u>pure cutting</u> to blend <u>cutting</u> (cutting with haemostasis).			
4.4	Come with 3 mono-polar coagulation modes - soft, forced and spray			
4.5	Desiccate mode for low voltage contact coagulation suitable in delicate tissue work			
4.6	Fulgurate mode for efficient non-contact coagulation in most applications			
4.7	Spray mode for coagulation large tissue areas with minimum depth of necrosis			
4.8	Come with 3 bipolar modes: precise, standard and macro or equivalent.			
4.9	Precise mode to have fine control of desiccation in delicate tissue.			
4.10	Standard mode for applications at low voltage to prevent sparking.			
4.11	Macro mode for applications on tissue with high resistance.			
4.12	Control panel with digital setting and display of power of modes used			
4.13	All mono-polar and bipolar modes shall be controllable by hand switch and footswitch.			
4.14	Bipolar mode can be activated by either foot pedal and / or auto coagulate by using forceps.			
4.15	Footswitches shall be splash proof and unaffected by common OR fluid spills, easy to clean, have suitable mechanical protection against accidental pedal depression and Switches shall not be susceptible to sticking in the ON position.			
4.16	Unit should have automatic power regulating feature to always keep minimum current to the patient throughout the procedures.			
4.17	Shall come with Return Electrode Contact Quality Monitors (RECQMs) to monitor the quality of electrode-skin contact to eliminate the risk of patient's burn. It shall give audio-visual alarm and deactivate output if contact between patient and electrode is loosened or disconnected.			
4.18	Come with output Leakage controller.			
4.19	Shall have over current protection			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.20	Shall be able to be activated from only one output at a time.			
4.21	Must have an undefeatable audible activation-tone indicator/alarm.			
4.22	The unit should have RF activation port to tell other equipment like ECG or EEG that RF current is being generated.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.3	The unit shall come with trolley well designed to fit the generator with drawers for keeping the accessories			
5.4	One unit/ set of explosion-protected foot pedal for mono-polar and bipolar operation			
5.5	Universal adapter to fit and use with most common electrosurgical instruments/ hand pieces x 1 set. Bidder shall indicate the brand of which the adapter is compatible with			
5.6	Come with reusable standard mono-polar pencil/ handle with 2 button switch - 1 unit Bidder must specify the type, size of pencil offered			
5.7	Reusable mono-polar cord x 1 set			
5.8	Come with 2 types of reusable standard mono-polar electrodes, 1 piece/ type of electrode. Bidder must specify the type, size of electrodes offered			
5.9	Come with 1 piece of reusable standard mono-polar coagulation forceps			
5.10	Come with 1 piece of reusable standard bipolar forceps with hand switch			
5.11	Reusable bipolar cord x 1 set			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
5.12	Reusable connecting cable for patient electrode x 1 set			
5.13	Patient return electrode for Adult & Child, 50 pieces each			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31-(19) video gastroscope, video duodenoscope & video colonoscope with camera system

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31-19	video gastroscope, video duodenoscope & video colonoscope with camera system			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A video endoscopy system include a gastroscope, a video duodenoscope & a video colonoscope			
2	Operational Requirements			
2.1	The <u>video endoscopy system</u> , including camera system, all video endoscopes and all other peripheral equipment offered must be of the <u>same BRAND and same MANUFACTURER</u> . All video endoscopes offered in this TSF must also be able to <u>share one common camera system</u> in order to promote sharing of such camera system and hence increase its utilisation. All bidders must comply with this condition.			
3	System Configurations			
3.1	Video Processor, 1 unit			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
3.2	Colour video monitor, 1 unit			
3.3	Xenon light source 300 watt, 1 unit			
3.4	VCD/DVD Recorder, 1 unit			
3.5	Endoscopy trolley, 1 unit			
3.6	Video gastroscope, 1 unit			
3.7	Video colonoscope, 1 unit			
3.8	Video duodenoscope therapeutic, 1 unit			
3.9	Suction Unit, 1 unit			
3.10	Manual scope disinfectant, 1 unit			
3.11	Ultrasonic cleaner for endoscopic accessories, 1 unit			
4	Technical Specifications			
4.1	Video Processor, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the video processor offered			
4.2	The video processor offered shall be compatible with all type of videoscopes offered in this tender. It shall be compatible with all type of flexible endoscopes by using of a suitable adapter.			
4.3	Capable of storing about 40 pre-recorded patients data and about 20 doctor's pre-set conditions			
4.4	Video Output: 1x RGB, 1x VBS, 2 x Y/C			
4.5	Video signal output: PAL, SECAM, NTSC			
4.6	Shall be capable of freezing an endoscope image, displaying stationary endoscopic images, with picture-in-picture (PiP) display function.			
4.7	Adjustable colour tone and white balance of the endoscopic images			
4.8	A keyboard for data entry and control of the processor shall be included.			
4.9	With Automatic gain control (AGC) to allow the image to be electrically amplified.			
4.10	With edge enhancement to increase the sharpness of images with at least 3 steps of setting from low to high.			
4.11	With 2 structural enhancement modes to improve the stereoscopic appearance and fine structural details of large and small lesions with 3 steps settings from low to high.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.12	With electronic magnification to enlarge images, image size selection and with iris focusing function			
4.13	The video processor system and all endoscopes specified in this TSF shall come with Narrow Band Imaging capabilities to enhance the visibility of mucosal surfaces and capillaries.			
4.14	It shall have HD-SDI and SD-SDI TV signal output to allow high definition transfer of video images			
4.15	With scope ID function to ease endoscope management			
4.16	Colour video monitor, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the monitor offered			
4.17	It shall be a full high definition LCD colour video monitor for medical use with approximately 170 degree horizontal and vertical viewing angle, 1920 x 1200 pixel, 16:10 ratio or better, with colour tone calibrated to suit for displaying endoscope images.			
4.18	It have at least 25" of screen size with high contrast ratio of approximately 1000 :1			
4.19	With multiple HD inputs and output, such as HD/SD SDI, Video, Y/C, Analogue RGB, External-Sync, HD15, DVI and etc.			
4.20	With picture-in-picture (PiP) display function.			
4.21	With memory of about 20 user selectable settings			
4.22	It shall be compatible with the video processor specified above.			
4.23	Xenon light source 300 watt, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the light source offered			
4.24	The lamp shall be of Xenon type of at least 300watt.			
4.25	It shall be compatible with narrow band imaging technology and come with special filters			
4.26	With white balance			
4.27	With automatic brightness control.			
4.28	There shall be at least 1 light outlet.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.29	The intensity of light shall be continuously adjustable. The adjustment shall be in both Manual and AUTO mode.			
4.30	The life span of the lamp shall be at least 500 hours with lifespan indicator.			
4.31	Shall come with a spare lamp.			
4.32	The light source shall have an air pump (Please indicate flow speed and number of step of speed adjustment here)			
4.33	Come with a VCD/DVD Recorder Bidder shall indicate brand and model information here and provide technical data document for the recorder offered			
4.34	Come with a Colour Video Printer Bidder shall indicate brand and model information here and provide technical data document for the video printer offered			
4.35	Come with an endoscopy trolley to hold the above items with scope hanger for the endoscopes specified below. The endoscopy trolley shall be made by the same endoscopy system manufacturer. Bidder shall indicate brand and model information here and provide technical data document for the trolley offered			
4.36	The following videoscopes shall have the scope related data stored in its memory chip, such as model, serial number, cumulative use, maintenance records, warranty date, owner information and etc. Bidder shall declare its compliance here.			
4.37	Video gastroscope, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the gastroscope offered			
4.38	It optical system shall be compatible with and allow the scope to perform narrow band imaging			
4.39	Field of view: ~140 degree			
4.40	Depth of field: ~2-100mm			
4.41	Direction of view: 0 degree forward			
4.42	Tip Deflection: approximately Up 200 deg., Down 100 deg., Right 120 deg , Left 120 deg			
4.43	Distal outer diameter: ~9mm			
4.44	Insertion tube outer diameter: ~9.5mm			
4.45	Inner diameter of instrument channel: ~2.4mm			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.46	Working length: ~1000mm			
4.47	Total length: ~1300mm			
4.48	Biopsy forceps, 2 pcs (one type each) Bidder shall indicate types, sizes (working length, channel size & etc.) and part number of each piece of these forceps offered here.			
4.49	Injection needle for oesophageal varices 2 sets			
4.50	Bite Block, 1 piece per each scope			
4.51	Video colonoscope, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the colonoscope offered			
4.52	It optical system shall be compatible with and allow the scope to perform narrow band imaging			
4.53	Field of view: ~140 degree			
4.54	Depth of field: ~3-100mm			
4.55	Direction of view: 0 degree forward			
4.56	Tip Deflection: approximately Up 180 deg., Down 180 deg., Right 160 deg , Left 160 deg			
4.57	Distal outer diameter: ~13mm			
4.58	Insertion tube outer diameter: ~12mm			
4.59	Inner diameter of instrument channel: ~3.5mm			
4.60	Working length: ~1700mm			
4.61	Total length: ~2000mm			
4.62	Biopsy forceps, 2 pcs (one type each) Bidder shall indicate types, sizes (working length, channel size & etc.) and part number of each piece of these forceps offered here.			
4.63	Polypectomy snare 2 sets			
4.64	Bite Block, 1 piece per each scope			
4.65	Video duodenoscope therapeutic, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the duodenoscope offered			
4.66	It optical system shall be compatible with and allow the scope to perform narrow band imaging			
4.67	Field of view: ~100 degree			
4.68	Depth of field: ~2-50mm			
4.69	Direction of view: ~5 degree backward oblique			
4.70	Tip Deflection: approximately Up 120 deg., Down 90 deg., Right 110 deg , Left 90 deg			
4.71	Distal outer diameter: ~13mm			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.72	Insertion tube outer diameter: ~11mm			
4.73	Inner diameter of instrument channel: ~4mm			
4.74	Working length: ~1200mm			
4.75	Total length: ~1500mm			
4.76	Forceps elevator: V-groove type or equivalent.			
4.77	All accessories offered for the duodenoscope shall be compatible with the V-groove forceps elevator or any equivalent.			
4.78	Biopsy forceps, 2 pcs (one type each) Bidder shall indicate types, sizes (working length, channel size & etc.) and part number of each piece of these forceps offered here.			
4.79	Foreign body removal forceps, 1 pc			
4.80	Haemostasis injection needle, 1 pc			
4.81	Haemostasis loops, 1 pc			
4.82	Gastric Balloon Dilatation Device, 1 pc			
4.83	Papillotomy knife, 1 pc			
4.84	Single use triple lumen sphincterotomy V, regular tip, 7mm distal tip, 25mm cutting wire, 1 set			
4.85	Bite Block, 1 piece per each scope			
4.86	Suction unit, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the Suction unit offered			
4.87	Suction unit designed for endoscopic and surgical suction with variable suction control, strong suction capability, with a 2 litre Autoclaveable jars, Bidder shall indicate the suction pressure here.			
4.88	Manual scope disinfectant, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the scope disinfectant offered			
4.89	Washer/disinfectant for disinfection of endoscopes, both flexible and video endoscopes			
4.90	The unit shall be mobile on castors			
4.91	Dimension (width): 100mm x 500 x 900			
4.92	Weight: ~30kg			
4.93	Tray Capacity: min. 6 L			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.94	Ultrasonic cleaner for endoscopic accessories, 1 unit Bidder shall indicate brand and model information here and provide technical data document for the Ultrasonic cleaner offered			
4.95	The unit shall be specially designed for cleaning of endoscopic accessories.			
4.96	* Bidder shall indicate here the technical information, which include frequency in kHz, capacity of tank and etc.			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.3	One set of the standard maintenance accessories, for example, cleaning brushes, rubber seal, cleaning cap, cleaning adapter silicone oil EO gas sterilisation venting cap, shall be included for each scope. * Bidder shall specify in details the quantity of each item included in its offer.			
5.4	Come with 2 boxes of 100 pieces colour video printing paper,			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
8.2	In this case the user training should include hands on training of sufficient duration (min. 1 week) for up to 2 persons per machine & per endoscope at a suitable location, including traveling and per diem cost of Purchaser's personnel if applicable.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31 - (20) Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser's Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	A multipurpose flat panel digital subtraction Angiography X-ray system for Radiology and Neurology intervention in the Radiology department.			
2	Operational Requirements			
2.1	It shall operate on AC power supply.			
3	System Configurations			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
3.1	Flat panel digital subtraction Angiography X-ray system, 1 unit			
3.2	CD recording and archival, 1 unit			
3.3	Integrated 3D Angiography workstation, 1 unit			
3.4	Ceiling suspended adjustable Lead glass shielding at tableside, 1 unit			
3.5	Hemodynamic physiology monitor for DSA use, 1 unit			
3.6	Single head pressure injector suitable for angiography procedures including aortography, 1 unit			
3.7	DICOM dry laser camera minimum 600 dpi resolution, 1 unit			
3.8	UPS for digital system, capacity sufficient to support 30 minutes of operation time & stabilizer for the complete lab, 1 unit			
3.9	Lead Glass 100*120 cm, 1 piece			
3.10	Lead apron, 6 pieces			
3.11	Thyroid shield, 6 pieces			
	Lead goggles, 3 pieces			
3.13	Bidder shall indicate brand and model information here and provide technical data document for major components specified above			
4	Technical Specifications			
4.1	Bidders shall offer the most recent advanced high end models from the leading manufacturer only. Any deviation in this regard would make the bid to be rejected technically.			
4.2	Gantry:			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
4.3	Ceiling mounted gantry providing full body coverage without repositioning of patient. Gantry should have 0, 90, -90 deg working positions for easy operation from 3 sides of the patient. Facility for motorized positioning/rotation of stand from the ceiling pivot by +/-90 degrees for improved workflow and for ease of operation from both left and right side of the patient in addition to zero degree normal head end position. Patient access should be possible from either left or right side. 25 deg/sec or higher rotation speed with non-contact sensing mechanism (no collision protection switches). Gantry rotation/ angulation +/- 120 deg and +/- 90 deg respectively			
4.4	The system should have capability of memorizing at least 2 positions for easy recall of gantry positions for PTAs (Percutaneous transluminal angioplasty or intervention).			
4.5	The throat depth of the gantry should be 100cm or more for better groin access.			
4.6	Table:			
4.7	Motorized up/down, free floating 4 way table top, least radiation attenuation, at least 200 kg + at least 100kgs of additional weight for resuscitation in the metal free overhang area without having to retract the table back on its base.			
4.8	Table should have tilt facility to enhance the accuracy and efficiency of gravity-oriented procedures.			
4.9	At least +/- 15deg tilt should be possible.			
4.10	Detector:			
4.11	A 30x40cm rectangular detector that can be rotated by 90 degrees for better flexibility and projection angles depending upon area of interest.			
4.12	Flat Detector of latest generation, the digital output of the flat detector should be is 2k*2.5k image matrix at 14 bits depth for the largest mode.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
4.13	System should have at least six imaging modes.			
4.14	DQE of the entire detector should be more than 70%, higher preferred:			
4.15	Min Pixel pitch of at least 160 micrometre lower preferred for better resolution			
4.16	Image Processing & Storage:			
4.17	System should have a fully digital 2K image processing for improved detailed visualization of small structures.			
4.18	System should have storage capability of at least 50,000 images at matrix size of 1024 x 1024,			
4.19	Advanced image processing technique for			
4.20	a) Real Time Edge Enhancement			
4.21	b) Real Time Harmonisation			
4.22	c) Real Time Noise reduction and Dose Correction Algorithms			
4.23	Availability of Vascular analysis software both in examination room and console room.			
4.24	System should be capable of virtual collimation of the shutters and wedges in the last image to reduce the x-ray dose.			
4.25	Grab function to allow storage and archiving of fluoro image.			
4.26	X- ray Generator and X-ray Tube:			
4.27	The system should have microprocessor controlled 100KW high frequency convertor generator.			
4.28	Voltage range :40 to 125KV			
4.29	Nominal Power: At least 100kW.			
4.30	Pulsed X-ray for (subtracted) acquisition up to 6 frames/s for vascular applications			
4.31	Fluoroscopy should be possible in low frame rates up to 3.75fr/sec.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
4.32	A noise-free, oil cooled, dual focus rotating anode x-ray tube with spiral groove bearing technology and fluid lubricant for faster cooling should be provided.			
4.33	Minimum Anode Heat Capacity: 2.4 MHU or more.			
4.34	Cooling rate or Anode Heat Dissipation of x-ray tube should be more 500 KHU.			
4.35	X-ray tube should have secondary grid switching.			
4.36	System should be capable of delivering minimum 3200W continuous fluoro power.			
4.37	Additional beam filtration of at least 1.0 mm Cu equivalent. Different filter sizes to be freely selectable at the table side for any patient weight for maximum radiation safety to staff and patients			
4.38	Virtual collimation of shutters and filters on the last image to reduce extra radiation for positioning of shutters.			
4.39	System should have road mapping facility wherein subtracted roadmap is superimposed on live fluoroscopy. It should be possible to select different roadmap protocols depending upon the anatomy and procedure type.			
4.40	Overlaying of live fluoroscopy image over reference image with fade-in and fade-out capability.			
4.41	Parallel display of live and roadmap image for optimal guide-wire navigation.			
4.42	Monitors:			
4.43	Two monitors of at least 18" size TFT/LCD live reference and subtracted image with high resolution flicker free display should be provided in the examination room . The monitor carriage in the exam room should move over a wide range longitudinally and transversally for better viewing.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
4.44	A motorized up-down movement of the monitor carriage will be preferred.			
4.45	An at least 18" TFT slave monitor should be provided in the console room for live images.			
4.46	Additional monitor for patient database is must for user friendly patient entry without inhibiting live fluoroscopy viewing on slave monitor .			
4.47	All intervention tools necessary for Radiology and Neurology shall be included. Bidder must indicate all such tools which have been included in the offer here.			
4.48	3D rotational angiography system shall be included.			
4.49	System should have an integrated 3D workstation to for reconstruction of images in 3D and display of 3D images and control in examination with following advanced features			
4.50	•Reconstructive zoom			
4.51	•Automated vessel analysis			
4.52	•Virtual stenting			
4.53	•Aneurysm analysis			
4.54	•Catheter tip shaping			
4.55	•CalciView			
4.56	•SpineView			
4.57	Soft Tissue Imaging: CT option to visualize soft tissue by rotational scan of the cathlab gantry. The CT 3D volume can be viewed in control room and examination room also.			
4.58	Contrast resolution for soft tissue imaging should be up to 5HU.			
4.59	Subtracted Bolus Chase: For visualisation of lower peripheral vessel structures wherein the contrast bolus is followed interactively by a motorized table scan movement.			
4.60	Better Stent Viewing HW and SW or equivalent to significantly improve localized stent visibility in addition to inbuilt software for stent visibility improvement.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
4.61	Stent Boost should have capability of showing fade in-fadeout of lumen for better stent visibility in relation to coronary artery wall.			
4.62	3D road mapping to reduce contrast and time, should allow overlay of real-time 2D fluoro images on the 3D vessel image to see the advancement of the guide wire, catheter and coils on the 3D volume in real time.			
4.63	System should have software to Percutaneous needle guided biopsies, drainages etc. by creating virtual paths on CT datasets. It should be possible to overlay live fluoro in real time on CT image to see the progression of the needle to the target area.			
4.64	It should be possible to do automatic dual axis rotation wherein both rotation and angulation movements are combined in one single scan trajectory to reduce the x-ray dose and contrast required for doing an angio procedure.			
4.65	Electrophysiology tools with the following functions shall be included:			
4.66	The system should be capable of providing 3D image of the heart based on both techniques i.e. from pre interventional CT image and also from an actual 3D rotational angiography acquisition in the cathlab.			
4.67	The 3D segmentation of different heart structures should be automatic. It should be possible to select the 3D anatomy like left atrium and overlay it on live fluoroscopy image. The 3D image should move in real time and in sync with the x-ray system gantry rotation to help viewing the best projection.			
4.68	CD recording and archival, 1 unit			
4.69	DICOM 3.0 based CD recording for recording on CD. CD review of DICOM CD's.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
4.70	System should have ability to record DSA runs on the CD and the embedded viewer should support review of these DSA runs at referring physicians PC.			
4.71	Angiography workstation, 1 unit			
4.72	The workstation provided should have the ability to view CT and MR images also.			
4.73	Ceiling suspended adjustable Lead glass shielding at tableside, 1 unit			
4.74	Hemodynamic physiology monitor for DSA use, 1 unit			
4.75	The monitoring system capable of monitoring 2 invasive pressures and 3 lead ECG. Other functions should include NIBP, SPO2 measurements.			
4.76	Single head pressure injector, 1 unit , suitable for angiography procedures including aortography			
4.77	DICOM dry laser camera minimum 600 dpi resolution, 1 unit			
4.78	UPS for digital system, 1 unit , capacity sufficient to support 30 minutes of operation time & stabilizer for the complete lab			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.3	Lead Glass 100*120 cm, 1 piece			
5.4	Lead apron, 6 pieces			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (20)	Flat Panel Digital Subtraction Angiography System with Pressure Injector including Accessories			
5.5	Thyroid shield, 6 pieces			
5.6	Lead goggles, 3 pieces			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31 - (21) Flat Panel Digital Fluoroscopy

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
30 - (21)	Flat Panel Digital Fluoroscopy			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	It is a Radiography / Fluoroscopy X-ray unit with DSA function.			
2	Operational Requirements			
2.1	It shall operate on AC power supply.			
3	System Configurations			
3.1	Flat panel digital Fluoroscopy X-ray unit, , 1 unit			
3.2	Ceiling suspended adjustable Lead glass shielding at tableside, 1 unit			
3.3	Workstation, 1 unit			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
30 - (21)	Flat Panel Digital Fluoroscopy			
3.4	Dry chemistry printer (minimum 600 dpi) capable of multiple size films up to 14"x17" networked to the system , 1 unit			
3.5	Flicker free slim film viewer with viewing area 140W x 43H cm, 1 unit			
3.6	Featherlite Lead wrap around jacket, 6 pieces.			
3.7	Featherlite Lead wrap around skirt or frock, 6 pieces.			
3.8	Thyroid shields , 6 pieces			
	Lead goggles, 3 pieces			
3.9	Lead Glass viewing window 100cmx120 cm , 1 unit			
3.10	UPS 150 KVA with 15 minutes back up, 1 unit			
3.11	Bidder shall indicate brand and model information here and provide technical data document for major components specified above			
4	Technical Specifications			
4.1	An advanced remote controlled 1000mA digital multipurpose fluoro-radiography system. The equipment should be capable of performing all plain and contrast radiography. It should have facility for DSA for interventional procedures. Latest version of the quoted machine and accessories available at time of acceptance of tender is to be supplied by the firm. The system should have the following essential features :			
4.2	It shall be able to perform chest Radiography examination.			
4.3	Minimum Specifications : The system will comprise Dynamic Flat Panel based remote controlled Digital Fluoroscopy and Radiography machine with high frequency generator, rotating anode X-ray tube, and motorized table along with viewing monitors and dry chemistry printer. It should have a cassette-less design with instant availability of image for streamlined workflow.			
4.4	X-ray generator : High frequency generator with microprocessor control and touch screen operation for multiprogramming and having high dose yield with following parameters :			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
30 - (21)	Flat Panel Digital Fluoroscopy			
4.5	Radiography:			
4.6	Maximum mA output: not less than 1000mA.			
4.7	KV Range : 40-150 KV			
4.8	Power: not less than 80 kW			
4.9	Automatic exposure control for Radiography.			
4.10	Fluoroscopy:			
4.11	Frame rate : 15 or more/sec in 1Kx1K 12 bit matrix.			
4.12	KV range : 40-150KV			
4.13	Automatic dose rate control.			
4.14	Pulsed fluoroscopy should be available at various rates.			
4.15	Facility for digitally recording fluoroscopy runs 1Kx1K 12 bit resolution.			
4.16	Digital Detector for Fluoroscopy and Direct Radiography:			
4.17	Type: Selenium based (a-se) direct-conversion Flat Panel detector or a SI TFT array with Csl scintillator.			
4.18	Size : Digital detector size not less than 43 x 43 cm. Largest possible detector size must be offered.			
4.19	Image acquisition matrix : 2.8Kx2.8K or higher.			
4.20	Pixel Size: not more than 150 um (micrometer)			
4.21	Bit depth : 12 bits or higher.			
4.22	X-ray Tube features :			
4.23	At least an 80 KW X-Ray tube with dual focal spots.			
4.24	Rotating anode with a speed of >3000 rpm			
4.25	Anode heat storage capacity should be not less than 300 kHU.			
4.26	Tube assembly coupled with the patient's couch for coordinated movements.			
4.27	Collimator:			
4.28	Motorized multi-leaf collimator. Wedge filters and copper filters of different thickness must be available.			
4.29	Anatomical Programme based on auto filter selection facility.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
30 - (21)	Flat Panel Digital Fluoroscopy			
4.30	Integrated Dose Area Product chamber for Kerma and Patient entrance dose calculation with display on console and live image.			
4.31	Table:			
4.32	200 x 70 cm or larger, scratch resistant table top with 150kg or higher load carrying capacity in all positions.			
4.33	Motor driven table tilt or C-Arm movement for covering head to toe imaging. It should have soft start and stop with digital display of tilt angle. Facility of auto stop in Horizontal position is required.			
4.34	Motorized table top movement in longitudinal axis (>-100 cm) and transverse axis (>=20 cm). Motorized detector movement of 100 cm or more along long axis of table. Motorized height adjustment of the table should be available.			
4.35	Remotely operated compression device with safety features.			
4.36	Footrest attachment should be possible at multiple positions of the table. The footrest shall be included in the offer.			
4.37	Operator console and image system:			
4.38	Remote operating console for table and system control. Table side controls in examination room. Console table to be included Intercom system to communicate with the patients.			
4.39	Anatomical pre-sets for radiography and fluoroscopy along with optimized post processing and filter selection. Image processing functions : Black/inversion, windowing, edge enhancement, text input, roaming.			
4.40	High speed processor based on Windows operating platform.			
4.41	Storage of 2000 full resolution and 10,000 fluoroscopy images in 1Kx1K 12 bit matrix and Radiography image matrix of 2.8Kx2.8K 12 bit. Display matrix should be 1024x1024.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
30 - (21)	Flat Panel Digital Fluoroscopy			
4.42	Image stitching for long legs/spine images facility to be available.			
4.43	Fluoroscopy loops recording facility of up to 15 frames/sec Fully DICOM 3.0 compliant with built in CD/DVD recording.			
4.44	All available DICOM service classes including work list, MPPS, query/retrieve, Print, Storage, commitment, CD/DVD burner are to be available.			
4.45	Full connectivity with Hospital/Radiology network is to be provided.			
4.46	Image storage with last image hold.			
4.47	Footswitch for fluoroscopy.			
4.48	Digital subtraction angiography package.			
4.49	Multiple image display of 16 images and 4 images.			
4.50	Alphanumeric patient data input.			
4.51	Monitors: Three ultrahigh resolution, high definition monitors 19" LCD or more with minimum output of 500 Cd/m ² for high contrast, distortion free image display- separately for the live and reference images. Two monitors to be ceiling suspended and one on control console.			
4.52	The following peripheral equipment shall be included:			
4.53	Ceiling suspended adjustable Lead glass shielding at tableside, 1 unit			
4.54	Workstation, 1 unit			
4.55	The images from the console to be transferred to a softcopy reporting workstation in DICOM format. The workstation will have two 3MP medical grade monitors in portrait orientation and networked to the supplier printer. It should be possible to transfer and view DICOM images from other modalities. CD/DVD recording along with fast processor and storage capacity of at least 20,000 full resolution radiography images.			
4.56	Dry chemistry printer (minimum 600 dpi) capable of multiple size films up to 14"x17"networked to the system , 1 unit			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
30 - (21)	Flat Panel Digital Fluoroscopy			
4.57	Flicker free slim film viewer with viewing area 140W x 43H cm, 1 unit			
4.58	The film viewer with viewing area of 140W x 43H cm. Luminance: 1500 cd/m2. Film holder at the upper and lower edge of the viewing area. Colour temperature: approx. 6200 kelvin.			
4.59	UPS 150 KVA with 15 minutes back up, 1 unit			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.3	Featherlite Lead wrap around jacket, 6 pieces.			
5.4	Featherlite Lead wrap around skirt or frock, 6 pieces.			
5.5	Thyroid shields , 6 pieces			
5.6	Lead goggles, 3 pieces			
5.7	Lead Glass viewing window 100cmx120 cm , 1 unit			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
30 - (21)	Flat Panel Digital Fluoroscopy			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

Technical Specifications Form:

Specification & Statement of Compliance, 31 - (22) Motorised high frequency portable digital X-ray

Bidders are to offer a **standard production model** most closely matching the specification below and provide details of the offer. **The offer must be for brand new equipment.**

These specifications are for the **minimum requirement**. Bidders may offer higher specifications but they are to highlight these in the Statement of Compliance column. Units are to be stated using the SI system. For example length in metres (m). Multiples and sub-multiples to be used are: 10^6 mega (M); 10^3 kilo (k); 10^{-3} milli (m) and 10^{-6} micro (μ).

Bidders must enter their offered specifications against each parameter of this Technical Specifications Form (TSF), comment as necessary, and sign and stamp each page. Failure to complete this statement of compliance may result in the offer being rejected. A Bidder who enters texts such as "Yes", "Complied", "Better", "Refer to catalogue", and directly copying the Purchaser's descriptions, leaving any parameter line blank and/or submit any text or content of this nature may result in the offer being rejected.

The Statement of Compliance must be substantiated with authenticated catalogue/data sheet/manual with the page number of original catalogue/datasheet/manual of the relevant parameters indicated.

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/datasheet/manual
31 - (22)	Motorised high frequency portable digital X-ray			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	Description of Functions			
1.1	It is a motorised high frequency portable digital flat panel X-ray machine			
2	Operational Requirements			
2.1	It shall operate on AC power as well as built-in battery			
3	System Configurations			
3.1	Motorised high frequency portable digital X-ray machine, 1 unit			
4	Technical Specifications			
4.1	X-ray generator:			
4.2	Type: High frequency			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (22)	Motorised high frequency portable digital X-ray			
4.3	Power: not less than 40 KW			
4.4	KV range: 40 – 150 kV in steps of 1 kV			
4.5	mA range: 10 to 500 mA			
4.6	mA range: 0.1 – 500 mA			
4.7	Exposure time: 0.001 – 10 s			
4.8	X-ray Tube:			
4.9	Focal spot: dual focal spots of 0.7 & 1.3mm			
4.10	Heat storage capacity: 300 KHU			
4.11	Max Voltage: 150 KV			
4.12	With tube overload protection			
4.13	Detector:			
4.14	Type: CsI flat detector			
4.15	Detector size: 35 cm x 43 cm (14" x 17")			
4.16	Image matrix size: > 3000 X 2300 pixel			
4.17	Pixel size: approximately 140 - 150 um			
4.18	Image resolution: more than 30 lp/cm			
4.19	MTF (%) at 1.0 Lp/mm: > 65			
4.20	Battery:			
4.21	Come with internal Lithium ion battery with battery indicator.			
4.22	Battery charging time: less than 4 hours to fully charged			
4.23	Battery operating time: 2 hours typical at 100 images/hour			
4.24	Grid:			
4.25	Type: click on, fixed grid 40 lines/cm			
4.26	Orientation: Landscape or portrait			
4.27	Collimator:			
4.28	Type: manual, with light field indicator			
4.29	Rotation: $\pm 120^\circ$			
4.30	Filters: built in filter disk, with more than 2.5 Aluminium equivalent, for manual filter selection: • No filter • 0.2 mm Cu + 1 mm AL • 0.1 mm Cu + 1 mm AL • 2 mm AL			
4.31	With Laser light alignment at fixed SID.			
4.32	With manual SID indication.			
4.33	Dose Area product meter:			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (22)	Motorised high frequency portable digital X-ray			
4.34	The Dose Area Product meter should measure the X-ray dose output at the collimator and reports the measured Dose Area Product (mGy*m2) to the DICOM header of the image.			
4.35	Image processing subsystem & operator's console:			
4.36	1) Hardware:			
4.37	RAM storage capacity : >= 4 Gbyte			
4.38	Local storage: typically 4000 images			
4.39	With image storage on CD-R/ DVD-R			
4.40	Start-up time: Less than 3 minutes			
4.41	Monitor: LCD colour touch-screen monitor, not less than 15".			
4.42	2) Image processing:			
4.43	With automatic detection of exposed area (auto-shuttering)			
4.44	With pre-defined, anatomically specific processing sets			
4.45	With customizable processing sets			
4.46	With image rotation and mirroring			
4.47	3) Connectivity:			
4.48	Come with DICOM Storage / Commit, DICOM BWLM, DICOM MPPS, DICOM print & DICOM Grayscale Standard Display			
4.49	4) System functionality:			
4.50	With fully customizable patient work list			
4.51	With examination related pre-configured views			
4.52	All generator settings automatically as well as manually possible			
4.53	Collimator set automatically according to examination			
4.54	Pre-filter settings automatically as well as manually possible			
4.55	Manual input possibility for patient data			
4.56	Automatic as well as fully customizable film labelling possible			
4.57	Generator Control: integrated into work spot software and with more than 500 pre-programmable APRs			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (22)	Motorised high frequency portable digital X-ray			
4.58	Should be possible to perform an exam with just three clicks on the user interface			
4.59	Paediatric friendly dose management:			
4.60	With filters built-in to the collimator without having to carry filters.			
4.61	Short exposure time: 1 ms			
5	Accessories, Spare Parts and Consumables			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
6	Operating Environment			
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	This unit shall be certified to meet ISO9001 and ISO14971 and ISO 13485:2003/AC:2007 or Directive 93/42/EEC and its subsequent additional Directives amending to it or USFDA approval. Certificates showing the compliance of this unit offered with any relevant quality and safety standards MUST be submitted with this TSF.			
8	User Training:			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	The warranty period for this item shall be 24 months after acceptance of the Goods			

S No.	Purchaser' Specifications	Bidder's Offer/ Statement of Compliance	Deviation if any	Page no. of catalogue/ datasheet/ manual
31 - (22)	Motorised high frequency portable digital X-ray			
10	Maintenance Service During Warranty Period			
10.1	Preventive and corrective maintenance services during warranty period shall be included.			
11	Installation and Commissioning			
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),			
12	Documentation			
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language			

4. Drawings

These Bidding Documents do not include drawings.

5. Inspections and Tests

The following inspections and tests shall be performed:

A technical inspection team, at the option of the Purchaser, may conduct all or some of the following activities to verify the compliance of the offered goods as per specifications;

- visit the manufacturing site as required and confirm the manufacturing process to the required standards or certifications
- verify the products before shipment (pre shipment inspection)
- verify the products after arrival to the destination (post shipment inspection)
- verify the products after arrival and successful installation and commissioning (acceptance inspection)
- Technical trials or lab tests may be conducted for any equipment or instruments in case of any doubts on the quality against the specification

All costs of installation, operation, demonstration, technical assistance, inspections and tests shall be borne by the bidder, excepting those incurred for the salary and the travel costs of the technical inspection team.

PART 3 - Contract

Section VII. General Conditions of Contract

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Section VII. General Conditions of Contract

Definitions

1.1 The following words and expressions shall have the meanings hereby assigned to them:

- (a) “Bank” means the World Bank and refers to the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).
- (b) “Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- (c) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.
- (d) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- (e) “Day” means calendar day.
- (f) “Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (g) “GCC” means the General Conditions of Contract.
- (h) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- (i) “Purchaser’s Country” is the country specified in the Special Conditions of Contract (SCC).
- (j) “Purchaser” means the entity purchasing the Goods and Related Services, as specified in the SCC.
- (k) “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
- (l) “SCC” means the Special Conditions of Contract.
- (m) “Subcontractor” means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
- (n) “Supplier” means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such

in the Contract Agreement.

- (o) “The Project Site,” where applicable, means the place named in the **SCC**.

Contract Documents 2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

Fraud and Corruption 3.1 If the Purchaser determines that the Supplier and/or any of its personnel, or its agents, or its Subcontractors, consultants, service providers, suppliers and/or their employees has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Purchaser may, after giving 14 days notice to the Supplier, terminate the Supplier's employment under the Contract and cancel the contract, and the provisions of Clause 35 shall apply as if such expulsion had been made under Sub-Clause 35.1.

- (a) For the purposes of this Sub-Clause:

- (i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party⁶;
- (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation⁷;
- (iii) “collusive practice” is an arrangement between two or more parties⁸ designed to achieve an improper purpose, including to influence improperly the actions of another party;
- (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party⁹;
- (v) “obstructive practice” is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt,

⁶ “Another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

⁷ “Party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

⁸ “Parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

⁹ “Party” refers to a participant in the procurement process or contract execution.

fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

- (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Clause 11 [Inspections and Audits by the Bank].

- 3.2 Should any employee of the Supplier be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the purchase of the Goods, then that employee shall be removed.

Interpretation

- 4.1 If the context so requires it, singular means plural and vice versa.

- 4.2 Incoterms

- (a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms.
- (b) The terms EXW, CIP, FCA, CFR and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms specified in the **SCC** and published by the International Chamber of Commerce in Paris, France.

- 4.3 Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.

- 4.4 Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

- 4.5 Nonwaiver

- (a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- (b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being

waived.

4.6 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

Language

5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the **SCC**. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, this translation shall govern.

5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

Joint Venture, Consortium or Association

6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

Eligibility

7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.

7.2 All Goods and Related Services to be supplied under the Contract and financed by the Bank shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

Notices

8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the **SCC**. The term “in writing” means communicated in written form with proof of receipt.

8.2 A notice shall be effective when delivered or on the notice’s effective date, whichever is later.

Governing Law

9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Purchaser’s Country, unless otherwise specified in the **SCC**.

Settlement of Disputes

10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute

arising between them under or in connection with the Contract.

10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in the SCC.**

10.3 Notwithstanding any reference to arbitration herein,

(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

(b) the Purchaser shall pay the Supplier any monies due the Supplier.

**Inspections and
Audit by the
Bank**

11.1 The Supplier shall permit, and shall cause its Subcontractors and consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Supplier's offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Supplier's and its Subcontractors and consultants' attention is drawn to Clause 3 [Fraud and Corruption], which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under this Sub-Clause 11.1 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

Scope of Supply

12.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.

**Delivery and
Documents**

13.1 Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the **SCC.**

**Supplier's
Responsibilities**

14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.

Contract Price

15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the **SCC.**

Terms of Payment

16.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the **SCC.**

16.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the

Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.

- 16.3 Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.
- 16.4 The currencies in which payments shall be made to the Supplier under this Contract shall be those in which the bid price is expressed.
- 16.5 In the event that the Purchaser fails to pay the Supplier any payment by its due date or within the period set forth in the **SCC**, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate shown in the **SCC**, for the period of delay until payment has been made in full, whether before or after judgment or arbitrage award.

Taxes and Duties

- 17.1 For goods manufactured outside the Purchaser's Country, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser's Country.
- 17.2 For goods Manufactured within the Purchaser's country, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
- 17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in the Purchaser's Country, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

Performance Security

- 18.1 If required as specified in the **SCC**, the Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the **SCC**.
- 18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 18.3 As specified in the **SCC**, the Performance Security, if required, shall be denominated in the currency(ies) of the Contract, or in a freely convertible currency acceptable to the Purchaser; and shall be in one of the format stipulated by the Purchaser in the **SCC**, or in another format acceptable to the Purchaser.
- 18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the **SCC**.

Copyright

- 19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are

furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party

**Confidential
Information**

- 20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.
- 20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.
- 20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:
- (a) the Purchaser or Supplier need to share with the Bank or other institutions participating in the financing of the Contract;
 - (b) now or hereafter enters the public domain through no fault of that party;
 - (c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
 - (d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
- 20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.
- 20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

Subcontracting

- 21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.
- 21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

Specifications and Standards	22.1	Technical Specifications and Drawings
	(a)	The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin.
	(b)	The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.
	(c)	Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.
Packing and Documents	23.1	The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
	23.2	The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC , and in any other instructions ordered by the Purchaser.
Insurance	24.1	Unless otherwise specified in the SCC , the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC .
Transportation	25.1	Unless otherwise specified in the SCC , responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.
Inspections and Tests	26.1	The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC .
	26.2	The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in the Purchaser's

Country as specified in the **SCC**. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.

- 26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.
- 26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.
- 26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.

Liquidated Damages

- 27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the **SCC** of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those **SCC**. Once the maximum is reached, the

Purchaser may terminate the Contract pursuant to GCC Clause 35.

Warranty

- 28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 28.2 Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- 28.3 Unless otherwise specified in the **SCC**, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the **SCC**, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 28.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the **SCC**, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the **SCC**, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

Patent Indemnity

- 29.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
 - (a) the installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and
 - (b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment,

plant, or materials not supplied by the Supplier, pursuant to the Contract.

- 29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 29.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.
- 29.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.
- 29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

Limitation of Liability

- 30.1 Except in cases of criminal negligence or willful misconduct,
 - (a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and
 - (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement

Change in Laws and Regulations

- 31.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in the place of the Purchaser's country where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the

Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

Force Majeure

- 32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 32.2 For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

Change Orders and Contract Amendments

- 33.1 The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:
- (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
 - (b) the method of shipment or packing;
 - (c) the place of delivery; and
 - (d) the Related Services to be provided by the Supplier.
- 33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier’s performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier’s receipt of the Purchaser’s change order.
- 33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

- 33.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

Extensions of Time

- 34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

Termination

- 35.1 Termination for Default
- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
 - (i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 34;
 - (ii) if the Supplier fails to perform any other obligation under the Contract; or
 - (iii) if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract.
 - (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.
- 35.2 Termination for Insolvency.
- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser
- 35.3 Termination for Convenience.
- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its

convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

- (b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
 - (i) to have any portion completed and delivered at the Contract terms and prices; and/or
 - (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

Assignment 36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

Export Restriction 37.1 Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, which arise from trade regulations from a country supplying those products/goods, systems or services, and which substantially impede the Supplier from meeting its obligations under the Contract, shall release the Supplier from the obligation to provide deliveries or services, always provided, however, that the Supplier can demonstrate to the satisfaction of the Purchaser and of the Bank that it has completed all formalities in a timely manner, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract. Termination of the Contract on this basis shall be for the Purchaser's convenience pursuant to Sub-Clause 35.3.

Section VIII. Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC 1.1(j)	The Purchaser's country is: Nepal
GCC 1.1(k)	The Purchaser is: Ministry of Health and Population, Department of Health Services, Logistics Management Division, Pachali, Teku, Kathmandu
GCC 1.1 (q)	The Project Site(s)/Final Destination(s) are: As specified in Section VI. Schedule of Requirements, List of Goods and Delivery Schedule
GCC 4.2 (a)	The meaning of the trade terms shall be as prescribed by Incoterms
GCC 4.2 (b)	The version edition of Incoterms shall be 2000
GCC 5.1	The language shall be: English
GCC 8.1	For notices , the Purchaser's address shall be: Attention: Director, Logistics Management Division Street Address: Pachali, Teku Floor/ Room number: First floor-Procurement Section City: Kathmandu Country: Nepal Telephone: 00977-1-4261768 Facsimile number: 977-1-4261413 (Attention: Director, LM Division) Electronic mail address: director@dohslmd.gov.np (For enquiries only)
GCC 9.1	The governing law shall be the law of: Nepal
GCC 10.2	The dispute resolution mechanism to be applied pursuant to GCC Sub-Clause 10.2 shall be as follows: (a) Contracts with foreign Supplier: GCC 10.2 (a)–Any dispute, controversy, or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force. (b) Contracts with national Supplier of the Purchaser's country: GCC 10.2 (b): i) In case of Dispute or difference arising between the Purchaser and a supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration Act, 2055 (1999) as currently in force. The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Purchaser and the Supplier. The

	third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed in accordance with the provisions of the Arbitration Act 2055 (1999) as currently in force. ii) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) above, within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the appointment of the Arbitrator shall be made in accordance with the provisions of the Arbitration Act, 2055 (1999) as currently in force. iii) The venue of Arbitration shall be Kathmandu and the language of the arbitration proceedings and that of all councils and communications between the parties shall be English. iv) The majority decision of arbitrators shall be final and binding upon parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. v) The provisions of the Arbitration Act, 2055 (1999), as currently in force.
GCC 13.1	Details of Shipping and other Documents to be furnished by the Supplier are: i. Two copies of the Supplier's invoice showing goods description, quantity, unit price, total amount with separation of any customs duty, sales taxes or other similar taxes; ii. Original copy of consignment note as applicable; iii. Two copies of packing list identifying contents of each case or package; iv. Two copies of manufacturer's warranty certificate; v. Two copies of manufacturer's test certificates; vi. Certificate of origin of goods; vii. Two Copies of Insurance certificates; valid for the period till installation and commissioning is completed. The above documents shall be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.
GCC 15.1	The prices charged for the Goods supplied and the related Services performed <i>shall not</i> be adjustable.
GCC 16.1	The method and conditions of payment to be made to the Supplier under this Contract shall be as follows: Payment for Goods and Services supplied from abroad : Payment of foreign currency portion shall be made in the following manner: (i) Advance Payment: Ten (10) percent of the foreign currency portion of the Contract Price shall be paid within thirty (30) days of signing of the Contract, and upon submission of claim and a bank guarantee for equivalent amount and in the form provided in Section IX of the bidding documents (Advance Payment Bank Guarantee), valid until the Goods are delivered and in the form provided in the bidding documents.

	and a bank guarantee (ii) On Shipment: Seventy (70) per cent of the foreign currency portion of the Contract Price of the Goods shipped shall be paid through irrevocable confirmed letter of credit opened in favour of the Supplier in a bank in its country, upon submission of documents specified in GCC Clause 13.1. Alternatively, at the Supplier's option, Seventy (70) per cent of the foreign currency portion of the Contract Price of the Goods shipped shall be paid within thirty (30) days of submission of documents specified in GCC Clause 13.1 of SCC above by direct bank transfer to the Supplier's nominated bank account. Opening charges and charges for amendment of the letter of credit at the request of or due to a fault or default of the Purchaser shall be to the account of the Purchaser. Confirmation charges and charges for amendment to letters of credit at the request of or due to a fault or default on behalf of the Supplier shall be to the account of the Supplier. (iii) On Acceptance: Twenty (20) per cent of the foreign currency portion of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods upon submission of an invoice supported by the Acceptance Certificate issued by the Purchaser following installation, commissioning, calibration and user training as appropriate. In the event that the Supplier does not wish to receive an Advance Payment, that portion will be added to the seventy percent (70%) On Shipment Payment. Payment of local currency portion for goods and services shall be made in Nepalese Rupee (NPR) within thirty (30) days of presentation of an invoice and supported by the Acceptance Certificate issued by the Purchaser. Payment for Goods and Services supplied from within the Purchaser's country : Payment for Goods and Services supplied from within the Purchaser's country shall be made in Nepalese Rupee (NPR), as follows: (i) Advance Payment: Ten (10) per cent of the Contract Price shall be paid within thirty (30) days of signing of the Contract, and upon submission of claim and a bank guarantee for equivalent amount and in the form provided in Section IX of the bidding documents (Advance Payment Bank Guarantee), valid until the Goods are delivered and in the form provided in the bidding documents. (ii) On Shipment: Seventy (70) per cent of the Contract Price of the Goods shipped shall be paid within 30 days of submission of documents specified in GCC Clause 13.1 of SCC above by direct bank transfer to the Supplier's nominated bank account. (iii) On Acceptance: Twenty (20) per cent of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods upon submission of an invoice and supported by the Acceptance Certificate issued by the Purchaser following installation, commissioning, calibration and user training as appropriate. In the event that the Supplier does not wish to receive an Advance Payment, that
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	portion will be added to the seventy percent (70%) On Shipment Payment. For all contracts with suppliers established in Nepal, 1.5% of the total contract value will be deducted on a <i>pro rata</i> basis with each payment, as advance income tax,
GCC 16.5	The payment-delay period after which the Purchaser shall pay interest to the supplier shall be 45 days. The interest rate that shall be applied is 8 % for NPR and 4 % for other currencies.
GCC 18.1	A Performance Security <i>shall be required.</i> Performance security shall be for an amount equal to ten (10) percent of the contract price. Performance Security should be issued by a Class A commercial bank in Nepal. In case of a Performance Security issued by a foreign bank, it shall be counter-guaranteed by a Class A commercial bank in Nepal.
GCC 18.3	The Performance Security shall be in the form of a Bank Guarantee as per the format provided in Section IX of the Bidding Documents. It shall be denominated in the currency(ies) of payment of the contract, in accordance with those portions of the Contract and shall cover the stipulated delivery and the warranty period. In case a Performance Security is presented in a foreign currency, it can be provided in a single foreign currency. Under these circumstances, the exchange rate to be used shall be in accordance with the ITB 34.1. In case of a multi-year supply arrangement, the Performance Security for the value of goods supplied for each year in accordance with the Contract may be released by the Purchaser after the Supplier has completed its supply and warranty obligations for each year in full quantity and supplies have been accepted by the Purchaser following post-shipment inspection. The Performance Security shall cover the entire delivery period and include the warranty period for the final supply.

GCC 23.2	The Packing, Marking and Documentation within and outside the packages shall be: Packing: The Supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. All shipping package cartons/crates/pallets shall be new and be of sufficient strength to withstand the rigours of transit. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration where appropriate, the remoteness of the goods' final destination and the absence of the heavy handling facilities at all points in transit. The packaging shall also take into account any specific requirement of a good such as temperature limitation or fragility. The Packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as described below. Marking: Each case/package shall have the following information printed in BOLD LETTERS on the outside and the size of the letters shall not be smaller than 2cm in height. a) Destination: Name(s) of the Final Destination/Project Site b) Name of Consignee: <i>Government of Nepal, Department of Health Services, Logistics Management Division</i> c) Contract Number: d) Name of the Manufacturer/Supplier: e) Name of the Good: f) Date of manufacture of Good: g) Special Handling Instructions h) Case/Package Identification Number: i) Gross and Net Weight: j) Other instructions to shippers and warehouse personnel (as appropriate) Documentation: Each case/ package shall contain 2 copies of packing list. The packing list shall contain following minimum information related to goods: a) Name of the Good b) Name of the manufacturer c) Country of origin of Good d) Date of manufacture e) Quantities of items inside the case/ package
GCC 24.1	The insurance coverage shall be as specified in the applicable Incoterms (DDU). The insurance shall be in an amount equal to 110 percent of the DDU value of the Goods from “warehouse” to “warehouse” on an “All Risks” basis, including war risks and strikes, on a consignment by consignment basis.
GCC 25.1	Responsibility for transportation of the Goods shall be as specified in the

	applicable Incoterms (DDU). The Supplier is required under the Contract to transport the Goods to the specified place of final destination as defined as the Project Site in Section VI – Schedule of Requirements – Part 1 List of Goods and Delivery Schedule, including insurance and storage. This shall be arranged by the Supplier, and related costs shall be included in the Contract Price.
GCC 26.1	The inspections and tests shall be: as specified in Section VI – Schedule of Requirements of the bidding documents.
GCC 26.2	The inspections and tests will be conducted at the premises of the supplier/manufacturer and/or at the Goods' final destination at the discretion of the Purchaser.
GCC 27.1	Applicable rate is 0.05% per day of the price of the delayed goods.
GCC 27.1	The maximum amount of liquidated damages shall be: ten percent (10%) of the Total Contract Price.
GCC 28.3	The period of validity of the Warranty shall be 24 months after acceptance of the Goods for items for which this is specified as par Part VI, Schedule of Requirements, 2.List of requirements for manufacturer's authorization, warranty period, related services and completion schedule For purposes of the Warranty, the place(s) of final destination(s) shall be as defined in Section VI, Schedule of Requirements, List of Goods and Delivery Schedule.
GCC 28.5	The period for repair or replacement shall be: within 60 days of receipt of written request by the Purchaser. In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of warranty as specified in SCC 28.3, from the date of correction or replacement.
GCC 36.1	The assignment by the Supplier for receipt of payments to a third party will only be considered by the Purchaser, if requested in the bid submitted, when: -the payments are to be received by a banking institution due to overdraft or loan facilities extended by such bank to the Supplier, - or - in case the Supplier is not a manufacturer, the payments are to be received by a manufacturer, manufacturing the goods supplied by the Supplier, and - the amount of the assignment of payment concerns does not exceed 70% of the contract price. In addition, in the case of assignment to a manufacturer, the amount may not exceed the CIF costs of the goods manufactured by such manufacturer to be supplied under the supply contract. At any rate assignment of payments shall be limited to one other party per contract. The Buyer shall be under no obligation to agree to such assignment of payments.

Attachment: Price Adjustment Formula

Not Applicable

Section IX. Contract Forms

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1. Contract Agreement

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS CONTRACT AGREEMENT is made

the [insert: **number**] day of [insert: **month**], [insert: **year**].

BETWEEN

- (1) Logistics Management Division, an agency of the Department of Health Services of the Ministry of Health and Population of the Government of Nepal and having its principal place of business at Pachali, Teku, Kathmandu, Nepal (hereinafter called “the Purchaser”), and
- (2) [insert name of Supplier], a corporation incorporated under the laws of [insert: country of Supplier] and having its principal place of business at [insert: address of Supplier] (hereinafter called “the Supplier”).

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [insert Contract Price in words and figures, expressed in the Contract currency(ies)] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:
 - (a) This Contract Agreement
 - (b) Special Conditions of Contract
 - (c) General Conditions of Contract
 - (d) Technical Requirements (including Schedule of Requirements and Technical Specifications)
 - (e) The Supplier’s Bid and original Price Schedules
 - (f) The Purchaser’s Notification of Award
 - (g) [Add here any other document(s)]
3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
4. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Nepal on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: *[insert signature]*
in the capacity of *[insert title or other appropriate designation]*
in the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

Signed: *[insert signature of authorized representative(s) of the Supplier]*
in the capacity of *[insert title or other appropriate designation]*
in the presence of *[insert identification of official witness]*

2. Performance Security

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

Date: *[insert date (as day, month, and year) of Bid Submission]*
ICB No. and title: *[insert no. and title of bidding process]*

Bank's Branch or Office: *[insert complete name of Guarantor]*

Beneficiary: *[insert complete name of Purchaser]*

PERFORMANCE GUARANTEE No.: *[insert Performance Guarantee number]*

We have been informed that *[insert complete name of Supplier]* (hereinafter called "the Supplier") has entered into Contract No. *[insert number]* dated *[insert day and month]*, *[insert year]* with you, for the supply of *[description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a Performance Guarantee is required.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum(s) not exceeding *[insert amount(s) in figures and words]* upon receipt by us of your first demand in writing declaring the Supplier to be in default under the Contract, without cavil or argument, or your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This Guarantee shall expire no later than the *[insert number]* day of *[insert month]* *[insert year]*, and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. URDG 758, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.

[signatures of authorized representatives of the bank and the Supplier]

3. Bank Guarantee for Advance Payment

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated.]

Date: *[insert date (as day, month, and year) of Bid Submission]*

ICB No. and title: *[insert number and title of bidding process]*

[bank's letterhead]

Beneficiary: *[insert legal name and address of Purchaser]*

ADVANCE PAYMENT GUARANTEE No.: *[insert Advance Payment Guarantee no.]*

We, *[insert legal name and address of bank]*, have been informed that *[insert complete name and address of Supplier]* (hereinafter called "the Supplier") has entered into Contract No. *[insert number]* dated *[insert date of Agreement]* with you, for the supply of *[insert types of Goods to be delivered]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance is to be made against an advance payment guarantee.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[insert amount(s) in figures and words]* upon receipt by us of your first demand in writing declaring that the Supplier is in breach of its obligation under the Contract because the Supplier used the advance payment for purposes other than toward delivery of the Goods.

It is a condition for any claim and payment under this Guarantee to be made that the advance payment referred to above must have been received by the Supplier on its account *[insert number and domicile of the account]*

This Guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until *[insert date]*.

This Guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. URDG 758.

[signature(s) of authorized representative(s) of the bank]